The Journal of the Michigan State Medical Society

PUBLISHED UNDER THE DIRECTION OF THE COUNCIL

Vol. III

DETROIT, MICHIGAN, MAY, 1904

No. 5

Original Articles

SOME INVESTIGATIONS ON HAY FEVER.*

OTTO SCHERER, Detroit.

John Bostock, before the Medico-Chirurgical Society of London, on the 16th of March, 1819, read a paper entitled "A Case of Periodical Affection of the Eyes and Chest," describing his own case. His attention was evidently attracted by the periodical annual return of the trouble, and bearing this in mind, he realized that he was dealing with a trouble entirely different from all known diseases, with a new clinical entity. This characteristic, the annual recurrence of the attack at about the same time, is of the utmost importance. When its reason is once elucidated, we will know vastly more of the nature of the affliction. Ignoring this feature of periodical recurrence, Wm. King, in 1843, denied that Bostock's "Catarrhus Aestivus" was a clinical entity. He confused with it ordinary catarrhs and asthma. Many an author since that time has done likewise, and has thus helped to blur a clear and very accurate picture of a clinical entity, such as we have from Bostock's description. The best writers on the subject have given due and proper consideration to this characteristic, and all that have, speak of it as the one important feature of the disease. W. C. Hollopeter says, "The salient feature of hay fever is its periodicity, or annual recurrence." This is part of its very nature, is the central point of diagnosis, is its chief characteristic, and to its elucidation, Holmes says, "all existing theories tend." overlooking of this characteristic has caused a great amount of confusion. It has caused many writers to call conditions hay fever, which are not hay fever, and it has brought confusion into the etiology, the pathology and the treatment of this trouble.

I am compelled to draw particular attention to this point, as we cannot arrive at accurate conclusions in regard to any disease, unless we are able to exclude conditions, which may be similar, but which we know are not identical. We can only intelligently study a disease, when we view it as a clinical, a pathological entity, when we can exclude all conditions that are foreign to it. This I believe we can do with hay fever, if we bear in mind its characteristic of periodical recurrence,

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^{*}Read before Section on Laryngology of Wayne County Medical Society, Jan. 25th, 1904.

and refuse to recognize as hay fever all conditions that do not show this feature. In my study of hay fever I have done this, and I have gone even further. considered that the fall hay fever of this country is a clinical and pathological entity with sharply defined characteristics. I believe it to differ from the spring or summer hay fever, and from Bostock's Catarrhus Aestivus, in a sufficient degree to allow us to consider it as a distinct clinical and pathological entity. I believe that we are justified in doing the same with spring hay fever. To study them intelligently we must consider each a disease by itself. That they differ clinically we know, as the patient suffering from fall hay fever does not have the spring hay fever, and the patient subject to the latter does not Furthermore we are have the former. justified in considering them distinct from one another, pathologically, for this same reason. I admit that there is a great resemblance and similarity in the two conditions, and in all probability the solution of the one, will bring with it the solution of the other.

Pollen was first suspected to be the exciting cause of hay fever by Elliotson, of London, in 1831, but not until Blackley published his work on hay fever, in 1873, did the belief in the pollen theory become widespread, and even then there were many who could not attribute to pollen any causative properties. Blackley found by tests that very many pollens, in fact all that he tried, had quite irritating action on himself, and on others who were hay fever sufferers, when applied to the conjunctiva, to the nasal mucous membrane, or to the skin, denuded of its epidermis, while they did not show this action on those who were not subject to hay fever. These tests were made principally, as far as I can learn, during the hay fever season and therefore are open to grave objections.

Blackley attributed this reaction to the mechanical irritation of the pollen on the parts to which it was applied, and principally to some property of the living protoplasm of the pollen. He also assumed a personal, individual predisposition of the hay fever sufferer to the irritating influence of the pollen, an idiosyncrasy. He found that the amount of pollen in the air was usually quite proportional to the severity of the hay fever attacks. He explained the freedom from hay fever on the ocean and in localities exempt from it, by the absence of pollen. He tried to explain all the symptoms by the local irritation of the pollen on the mucous mem-This was not always possible, branes. and often conflicted with known facts. There was much about the theory, as he brought it out, that was very fascinating, and yet it was open to the gravest objections. Many workers in this country also upheld and attempted to further the pollen theory, but like Blackley, they never brought convincing proof of the truth The reasons for this are various. The results of their tests were very often conflicting, their theory did not explain all the characteristics of true hay fever. By being used to explain the peculiarities of spurious cases, the theory was easily proven to be fallacious. To-day, probably, the great majority of physicians believe that pollen has some irritating properties on the hay fever patient, but I think that there are but very few who believe that pollen is the sole cause of hay fever.

In the spring of 1903, Prof. Dr. Dunbar, of Hamburg, Germany, published a monograph entitled "The Cause and Specific Cure of Hay Fever." A long series e

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of very carefully conducted experimental investigations led him to the belief that the spring hay fever of Europe is caused by the pollen of the plants belonging to the family of Gramineæ, or grasses, and that this is the only cause of hay fever, acting of course in connection with the individual predisposition. His work, although given due consideration by most writers, has not been received by all as conclusive proof, as to the etiology of hay There are some features of this disease that his investigations do not satisfactorily explain. Until the pollen theory elucidates hay fever in all its various phases and aspects, it cannot be accepted as proof positive of the etiology and pathology of this disease.

When I began the investigation of the etiology of hay fever, it seemed to me that the pollen theory, even with all its shortcomings, was the most plausible one, of all those advanced, to explain this trouble. I decided to look into the matter more deeply, and by direct proof try to advance the pollen theory, or to overthrow it. struck me very forcibly that pollen would better explain the periodical recurrence of the trouble, than any other external exciting cause that had been advanced. came to the conclusion that it would have to be the pollen from an anemophilous plant, as the pollen of the entomophilous plant is not carried by the air, and so could not produce any trouble, unless the patient came into direct contact with the plant. The plant, from which the pollen came, would have to be one which is very common and widespread in its habitat, and would probably prove to be wild growing, one not cultivated, as only such a one would produce pollen at about the same time annually.

While living in the country last summer and fall, I gathered all the various pollens that ripened about the time that the fall hay fever attacks begin. I incidentally noted the time of their production, the amounts produced, how they were carried to the pistillate flowers, and the time when they ceased to be formed. As a result of these observations, I found that the pollen of the Ragweed, Ambrosia Artemisiaefolia, also commonly known as Roman Wormwood, Hogweed, and Wild Tansy, is the only one that has all the characteristics of my hypothetical exciting cause of hay fever, and this corresponds with what many before me had suspected.

The first ragweed pollen that I could find was discovered on the 6th of August, and then only traces of it were found. After the 13th of August, it was produced in very large quantities and from the 30th of August on, the amount of it became progressively less, so that none was found in the country after the 10th of Septem-In Detroit, I found some as late as the 14th of September, but this was the last seen, and then there was only a trace of it. Ragweed is a purely anemophilous plant, is one of our commonest and most ubiquitous weeds, and its habitat, is given by Britton, as covering the country from Nova Scotia to Florida, and from British Columbia and Mexico. It is found in the West Indies and South America. is not prevalent in Europe, only having been introduced there as a weed. Parenthetically, I might call your attention to the absence of fall hay fever in Europe. When one's attention is once called to the plant, it is surprising how prevalent it is, even in the heart of a large city. I doubt whether there is a spot in the city of Detroit where in a radius of five hundred feet it would be impossible to find samples of the plant. Ragweed produces pollen in very large quantities during the two weeks from the middle of August to the beginning of September. This pollen is carried freely by the wind, probably to great distances, being exceedingly light. During this time it is present in the air of the city. This was easily demonstrated. I filtered air through cotton, drawing it through by means of a filter pump, and in every sample collected during the hay fever season I found the pollen grains. As the tests that I made last fall do not show accurately the amount of ragweed pollen present in the air during the critical period, being made to prove only its presence and not its amount, I will carry out similar experiments this coming fall with improved methods.

Blackley very conclusively proved this for the pollen of the grasses. As ragweed pollen is formed and scattered in the same manner, we are justified in drawing the conclusion that it must be present in like large quantities during the season of its production.

Ragweed pollen in bulk is a lemon yellow, odorless, non-sticky tasteless, powder. The individual grains are perfectly spherical, 28 microns in diameter on the average, and consist of an inner protoplasmic mass, which shows no structure. A thin membrane, called the intine, envelops the mass of protoplasm. Outside of this there is an outer covering called extine, which is covered with very many small projecting spines, like a chestnut burr. The grains do not contain any starchy matter, and in this are different from the pollen grains of the gramineæ, which all contain very minute rod like bodies, which show very strong starch reactions.

I have isolated from the ragweed pollen a white, amorphous substance, which has a toxic action on the hay fever patient. It is soluble in salt solutions and glycerin, but not in alcohol or ether, can be filtered through a Berkefeld filter and will not through animal membranes. dialyze When heated to a temperature of 80 degrees C., or almost that high, it loses its toxic properties. I have named it The residue left, when the ambrosin. ambrosin has been extracted from the pollen grains, is perfectly inert, having no irritating action whatever on the hay fever patient.

I made no tests on hay fever sufferers during the hay fever season, as the result of such tests would for obvious reasons be unreliable, and not convincing. I reasoned that I would be able to get the irritating effects of the pollen at any time of year, if it were the causative factor of hay fever, acting on a person with the peculiar susceptibility. Preparatory to these tests I made various trials with numerous pollens on immunes, meaning by immunes such as never have hav fever. I placed smaller and larger amounts of solid and of ground pollens into the conjunctival sac of my own eyes and into those of many others, who kindly submitted to these tests. All of the pollens so tried were without irritating effect, except the slight mechanical irritation that they produced, and this passed off in about two minutes after the pollen was removed. mehanical irritation was only present in a more marked degree when very large quantities of pollen were used. In no case was any irritation produced that could be attributed to a pollen toxin, so called, and this lack of irritating properties was still more marked when solutions of the pollen were used, as these solutions were free

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from any solid particles. These solutions are as inert as so much water, when applied to the immune, while when applied to the hay fever patient, the result is strikingly different.

On October the 27th, I made my first test on a fall hay fever patient, and as this was a typical case with a typical result, I will describe it more minutely. patient, Mr. K., has been a hay fever sufferer for twenty years, his attacks coming on every fall about the 15th of August, and lasting, if he remained in Detroit, the usual length of time. attacks are so severe that he is compelled to leave his home, which is in this city, and go north, where he is at once relieved and where he remains free from the affec-Should he return before the hay fever season has passed, he has a renewed attack, lasting until the critical period is His eyes and nose are quite seriously affected, and he also has very severe attacks of asthma. He has been treated by many physicians and many methods, but his hay fever returns with unfailing regularity. The asthmatic attacks are now much more severe than they were, when he was first affected by the hay fever. The only means of relief that he has found is to go north, or to some other locality where there is no hay fever. Ground ragweed pollen was used, and as small an amount was applied to the conjunctiva of the lower lid as was possible to do, and still be certain that some had been applied. The amount was about as much as a pin point. At once there was very severe smarting and burning, and very soon the eye began to discharge tears freely. Within five minutes the ocular and palpebral conjunctiva and the lid margin were intensely injected. The difference of the two eyes was very striking and could be seen easily at a distance of fifteen feet. Shortly after this the eye was chemotic, so that the conjunctiva was raised at least one-eight of an inch above the cornea, slightly interfering with the free closure of the lids. The lower lid swelled to about three times its normal thickness. These swellings and the injection of the conjunctiva increased for some time and then subsided, passing off completely in twenty-four hours. About four hours after the application the patient began to sneeze, and this sneezing came on at intervals for the next four or five hours, lasting until he retired. I must add that the patient was not aware of what I had used on him, or what I expected might be the result of the appli-

In another patient, on whom I made a test with ragweed pollen on the 11th of November, a Mr. F., a man who is a very severe sufferer, and in whom the trouble manifests itself principally as asthma, the irritation was even more severe, and the effect of the application, as characterized by him, was a typical attack of hay fever in its beginning. He had a pronounced attack of asthma come on about twelve hours after the application of the pollen to the eye. He also was ignorant of what I had used on him, and what the results might be. These tests were varied by the occasional use of an extract of pollen, and when this was used the effects were marked by the rapidity of their appearance.

I have now made these tests on eleven typical hay fever patients, and in every instance I got the same results, the irritation seemingly being somewhat proportionate to the severity of the attacks of hay fever. I have tried the ragweed pollen and the solutions of toxin made

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from it, on fifty-six immunes, and not in a single case have I found any irritation produced by it. To the immune it is absolutely inert.

In gathering data of the effect of the ragweed pollen on immunes, I had an interesting experience. I made applications of a solution of ragweed pollen to the eyes of several students. None of the gentlemen knew what I was using, or for what purpose, and I did not know whether there were hay fever patients among them; in fact, I believed them all to be immunes. One gentleman at once complained of the irritation, while the others did not consider the application more than if I had used distilled water. While I was noting names, date and time, the eye of the one who had complained of the smarting became intensely red, and I said to him that I believed him to be a hay fever sufferer. He answered, "Yes. I have been subject to hav fever for about twelve years." Within two minutes he began to sneeze, some of the solution probably passing through the tear duct into the nasal passage. The eye rapidly became more red and the conjunctiva became chemotic. The lid also swelled to quite an extent. The nasal passage of the side to which the application had been made was almost closed after five minutes. and there was free secretion from it. The eye teared some.

To ascertain whether there is a volatile substance in the pollen, I forced air through a considerable quantity of it and allowed a patient to breathe the air. The result was entirely negative. This was also proven with considerable certainty, by the fact that an ether extract of pollen is entirely inert.

I find that the ragweed pollen, when applied to the nasal mucosa, acts exactly

as it does when applied to the eye. When applied to the mucosa of the mouth, it does not seem to possess any irritating properties, at least not as marked as when applied to the eye or nose. As yet I do not know why this is so, but I assume that the saliva may possibly alter the toxin in some manner. A subcutaneous injection of 8 min. of a ragweed extract 1 part in 1,000,000 pts., produced the following effects on a hay fever patient: The site of the injection at once became irritated; within a few minutes it itched considerably, was quite red and somewhat The redness soon covered a space the size of half the palm of the hand, and the swelling also increased. After 24 hours the arm was swollen from elbow to wrist, and intensely injected. It was also very painful on motion and to After 48 hours the swelling pressure. and injection had disappeared, though the itching still persisted. Ten hours after the injection there was sneezing, nasal discharge, and a sensation of tickling in the nose. These symptoms lasted about 24 hours and then subsided, the patient describing them as a typical attack of mild hay fever. An injection of 12 min. of a solution 1 pt. to 100 pts., or 15,000 times as much pollen toxin as was given to the hay fever patient, produced in my . own case a severe local irritation, redness and swelling, extending from the wrist to the elbow, and lasting about 48 hours, but there were no other symptoms. temperature and all other functions remained perfectly normal. By applying the pollen or a solution of the pollen to the unbroken skin, I was unable to get any irritation. Numerous tests were made on the hay fever patients with the pollens of various plants, with goldenrod, oats, hay, corn, and others; hay, oats, and corn

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belonging to the gramineæ, the supposed cause of the spring hay fever (Dunbar). There was no reaction obtained with any of these pollens, resembling in any way the reaction produced by that of the ragweed.

With the goldenrod pollen, accused by many (also by Dunbar), as being one of the causes of fall hay fever, I was able to get a very slight effect in two cases of hay fever, but it was so slight that the patients themselves declared that there was no resemblance to the effect of the ragweed There was no irritation from its use, and the only noticeable effect was a very slight redness of the eye ball, so slight that it was even difficult to be certain of the redness. That the goldenrod cannot, in the natural course of events, be the causative factor of hay fever is proven by the fact that it is an entomophilous plant, the pollen being carried by insects and not by the air.

The deductions that I draw, and the conclusions arrived at, from the results of the foregoing tests and many others not mentioned, are the following:

The pollen theory is correct, but not when it explains hay fever as being due to the mechanical irritation of the various pollens on the mucous membranes of the air passages and eyes. The mechanical irritation of the pollen is no different in the hay fever sufferer than in the immune.

The pollen theory is wrong, when it assumes to explain hay fever by the local chemical action of the pollen toxin on the mucous membrane.

All cases of fall hay fever, that show a marked annual recurrence of the attack, the trouble setting in about the third week in August, and at no other time of the year, are directly due to ragweed pollen and to this only. Goldenrod and the

various other factors, accused by many writers, are not causes of hay fever.

I admit that there may be very rare cases which show all the characteristics of fall hay fever, and which are still not due to a pollen toxemia. These instances are probably always patients suffering from neurasthenia, and are undoubtedly of rare occurrence.

Besides the ragweed pollen, we have in the hay fever patient a systemic, not a localized condition, that allows the socalled toxin to act as such. I am at present not in a position to state with absolute assurance, although various facts elicited by experiments have almost convinced me. as to the nature of this underlying systemic condition. This condition is the underlying pathological factor, and without its presence we can not have hay fever, no matter how much pollen is present. Not only is this condition present during the hay fever season, but it is always present. It is part and parcel of the hay fever sufferer, it is a systemic idiosyncrasy for ragweed pollen, if you wish to call it so.

The ragweed pollen toxin has two actions on the hay fever patient, neither of which can it exert on the immune. The one is its local irritating property on the various tissues with which it is brought into contact, e. g., the mucous membranes, and which irritation it probably exerts by acting on the local nerve supply. This is the action which manifests itself almost at once by the smarting and the redness of the conjunctiva, when the toxin is brought into contact with it. The other is its action on some part of the central nervous system, probably the medulla, irritating centers therein, and thus producing a condition of hyperæsthesia in these centers. The mode of entrance of the toxin is by

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the circulation. This latter action is the cause of the most, if not all, of the symptoms of the patient, and without it I hardly believe that we would have a condition called hay fever.

The amount of pollen in the air during the critical period does not seem to be sufficient to produce, by local irritation, all symptoms of hay fever as we find them in many cases, while it is undoubtedly much more than enough to produce the same symptoms, by acting centrally, and by being assisted locally by the innumerable external irritants which can now make their presence known.

This hypersensitive condition of the nerve centers manifests itself by the sneezing, reflexly elicited, by various external irritants, like light, dust of all kinds, heat, cold, etc., and also by the asthma, which also seems to be reflexly induced by various external exciting causes, and which two conditions will come on hours after an application of pollen to a mucous membrane, or when injected subcutaneously.

This state of hyperæsthesia of the nerve centers I would liken in a limited measure to the condition of a patient with tetanus or rabies, where a draught of air or a sudden flash of light is often enough to throw him into convulsions.

Only when the hay fever patient is affected by the pollen toxin is this condition of the nerve centers present, and at no other time, and it passes off in from 24 to 48 hours, the length of time that it lasts depending on the severity of the intoxication.

This hypersensitive condition of the nerve centers explains many facts, which were always considered proofs of the fallacy of the pollen theory. I will only mention the following: Most hay fever patients know of one or more external irri-

tants that will bring on attack of sneezing, etc. Beard considered this as proof that in these cases the pollen was not the cause of the symptoms. When we know that pollen toxin produces a hyperæsthesia of the nerve centers, we can understand why these external irritants act only during the critical period and not at other times. Many hay fever patients have a severe attack of sneezing on awakening after sleeping in a closed room. It must be admitted that these patients were not exposed to pollen to any great extent during the night. It is thus not plausible that the local irritation of pollen could be the cause of this sneezing. The excitable condition of the sneezing center, due to the pollen intoxication of previous days, and the irritating influence of light on opening the eyes in the morning, or any other external irritant, seems to me to account for these attacks of sneezing in the most plausible manner.

The premonitory symptoms, and the general malaise of the hay fever patient during the attacks, can also be explained by this view of the pathology of the trouble.

This explanation of hay fever does away with the necessity of assuming it to be a neurosis, a theory that never seemed to me well proven, or even plausible, and one which is not believed in by many good writers.

The theory of local areas of hyperæsthesia in the nose, also does not seem plausible, as it fails to explain many facts in connection with the trouble.

It seems to me that this explanation, this view of the pathology of hay fever, allows us to understand and to explain all the peculiar manifestations of the disease, and it seems to make those facts substantiate the pollen theory, that before this were considered proof against it. e

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Looking at the pathology of hay fever in this light, we understand why no line of treatment up to the present has been satisfactory. In my estimation any treatment, to be successful, must change the systemic condition of the patient. Local treatment certainly cannot do this, even though it may be of very great use in relieving, in a measure, some of the manifestations of the disease when they are aggravated by local pathological conditions, as of the nasal passages.

The spring hay fever, as Prof. Dunbar claims, is due to the pollens of the gramineæ, the toxin of which is entirely different in its nature from that of ragweed, although its action on the spring hay fever sufferer may be identical to the action of the ragweed pollen toxin, on the fall hay fever sufferer. Where the former toxin is not changed by boiling, according to Prof. Dunbar, the latter is inactivated by a temperature below 80 degrees C. The two conditions are thus entirely different in their exciting cause, but I believe that their pathology is very similar.

Prof. Dunbar has produced an antitoxic serum by injecting the pollen toxin, isolated from rye pollen, into animals, and he advocates the local application of this antitoxin to the mucosa of the nose and eyes as a cure for hay fever. I cannot believe that the occasional application, locally, of such an antitoxin can act curative, when I take into consideration the systemic susceptibility of the patient. This opinion is substantiated by the reports that we have of its trial during the spring hay fever season of 1903.

If we believe that ragweed pollen is the exciting cause of fall hay fever, and I am convinced of this fact, we have at our command a means of making a positive diagnosis of the trouble, at any time of the

year, even without the history of the case. That this would rarely be of great advantage, I admit, and yet I can imagine cases in which it would be of use. The reaction produced by a proper amount of pollen toxin, although very marked, is not troublesome to the patient and is devoid of all danger. I would advocate, when using it, to make the application to the conjunctiva of the lower lid, and with an extremely minute amount of the ground pollen, or better still, with a standard solution of the pollen toxin, of no greater strength than one in one thousand. The reaction thus elicited will pass off in about 24 hours and will not annoy the patient to any great extent.

In concluding my paper, I wish to say that this is only to be considered a preliminary report of some of the work that I have done on hay fever. I hope that you will not assume that I lay claim to originality for all the facts reported to you this Some of my work, although done independent of the knowledge of what others had done before me, is only to be considered as confirmatory of such investigations. I certainly am anxious to give due credit to others, who have worked in this field and who have accomplished so much. I feel that it would be an injustice to you, gentlemen, if I should take up your time with reports of tests and of further work done on this subject, before it has reached some stage of completeness, and therefore I will postpone reporting more, until a future time, when I hope to be able to place before you some things that will be of more tangible benefit to the profession and to the hay fever sufferers.

It affords me great pleasure to express my sincere thanks to the gentlemen who have so kindly submitted to the many and often very unpleasant experiments.

OUR RELATION IN ACCIDENT CASES.*

T. F. HEAVENRICH. Port Huron.

A few months ago I was called to see a man, a railroad employe, who had been hurt while in the discharge of his duties. I found, on examination, that his injuries were trivial, and consisted of bruises and slight cuts. I assured him of the fact, that he would be all right in a few days, and able to go back to work. This statement seemed to disappoint him, and he said his intention was to lay up for a while and later claim damages against the road. With this purpose in view, he wanted me to continue calling on him and to exaggerate his injuries in speaking of them. He wanted to make a deal with me. I was to testify in his behalf, and thus aid in obtaining a verdict, for which I was to get a certain percentage of what he obtained.

An attorney had put him up to this idea, and was willing to carry the suit through on a commission basis. I refused to be a party to the transaction, and assured the patient that I would expose the scheme if tried.

A few days later he went back to work, and in his next pay-check no wages were deducted for loss of time. As for my bill, the company paid it.

About six weeks after this accident I was sent by one of the transportation companies to an inland town to examine a woman, who had filed notice of a suit for damages against the company, for injuries received on its line.

No report of the accident had been turned in by the employe, and no one of them in charge at the time when the accident was said to have occurred, knew anything about it.

An examination of the patient, and later of the physician in charge, convinced me that the case was a fake from start to finish, and further inquiry strengthened my opinion. The trial for damages will come up in the near future, and I sincerely hope that the evidence will expose the plot, and that the physician will get his just desserts. This, however, may not happen, as the tendency of our juries is to mulct the corporations for the benefit of the injured, and a good fluent lawyer can usually make a mountain out of a mole-hill, and thus arouse the sympathies of the twelve good men and true.

These two incidents, gentlemen, bring out very forcibly the fact that there are two sides to every question; and in the question of accident and responsibility, we should be most guarded and should carefully consider all facts as bearing on a case in hand. Take for example, the railroad companies and their cases.

With the vast evolution of railway systems, both steam and electric, transporting great multitudes of people, and millions of tons of freight, with its army of employes, accidents are constantly occurring, as a natural sequence to this network of rapid transit. With a knowledge of this fact, what does the railroad do? From a humane standpoint, some may say not, but true it is nevertheless, they have a well-organized relief system, composed of local surgeons, under the supervision of a chief surgeon, whose duty is to promulgate rules, and regulations for discipline, and the highest efficiency of the service in

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^{*}Read before the North Eastern District Medical Society.

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rendering aid to the injured. Local physicians are selected at towns along the route as amongst the best representatives of their profession at each place. Thus a passenger or employe may obtain prompt and efficient relief at any place of accident on that road.

Those who say that the railroads do not organize such forces for humanity's sake will, no doubt, come forward with a statement that they do it to protect their own interests. And in this they will speak the truth and strengthen the humanity argument for the road.

It is natural for a road to protect its financial interests, just as it is for any one of us to do likewise; but in this case, by protecting such interest they do not detract from the humane point, but add to it, by giving the services of the best men obtainable, and they expect from this feature to get the best and quickest recoveries from injuries.

Let me illustrate: While in service at one of the Detroit Hospitals I had a patient in my section who had been struck by an engine. The railroad surgeon came to see the case, a compound fracture of the tibia, and advised wiring the bones together. The patient's family physician thought otherwise, and treated the case accordingly. The patient lay in bed for nearly two months, and at the end of that period was as badly off as ever. At this stage another surgeon was called in, and his advice was the same as that the railroad surgeon had given. The operation was performed and a speedy recovery followed. The railroad was responsible for the accident, and adjusted the patient's claim; in this case the man was allowed loss of time from work. Should the company be held responsible for the loss of

time, when the true fact is, that the family physician had made a blunder in his work, and was responsible for the protracted disabilty?

Ralroad surgery is peculiar surgery, and in it opinions differ greatly. In view of such facts as above related, is it not humane, as well as economical for the company to provide its own staff of surgeons? Is not a man accustomed to such emergency work better equipped than a man in ordinary practice, who may get such a case once in a lifetime? And if he be better equipped, he is better able to relieve suffering, more efficiently, than the doctor in ordinary practice.

Usually, in accident cases, happening under corporation rule, the company pays the physician's bill, and the injured feel grateful. Unfortunately, this feeling is short lived and soon becomes enveloped in A suit for dama mantle of greed. ages follows, and I regret to say that often the physician in charge of the case, takes the witness stand and exaggerates his report in favor of his patient. Is this honorable? Should a physician be biased in his testimony? His work stops when his patient is well, and he cannot excuse himself for giving false testimony, and this is what he does when he pads any report of the case in dispute.

Outside features should be considered in all personal injury cases and with that object in view, I wish for a moment to speak of the diseases of the injured. It is a topic, however, too lengthy to go into minutely, so I will just abstract a few ideas.

I do not wish to take up the pathology of the many acute and chronic diseases that complicate injuries, but will mention a few that suggest further thought along this line.

Of all the diseases complicating injuries and defeating us in our life saving task, tuberculosis stands at the head. It is of chief interest, as there is often dissemination of tubercular material from injury or operation. There is often a tubercular foci not suspected until some appreciable lesion occurs to warrant us in assuming the pre-existence of the disease. Such lesions may occur in cases where the most careful examination had failed to detect the disease beforehand.

Syphilis is of interest also, as a disease with obscure lesions. With the virus in the system, and such a cause as trauma to favor its persistence, how can we expect good results?

Take diseases of the heart; you may find one with enough energy to perform its functions under ordinary circumstances. It has no reserve power to withstand shock, loss of lood, or sepsis, and its intolerance for anesthetics makes surgery a difficult feat.

Disease of the blood and blood vessels should be thought of, as should disorders of metabolism.

Alcoholism should be an important feature in considering cases. With a miserable wreck of a human being to work upon, how can we expect to get even fair results? The vitality is lowered and the wounds are slow to heal and pathogenic organisms are offered the best chance for invasion. The injured soft parts disintegrate, while broken bones receive no osteoblasts for repair.

Many other diseases should be mentioned, but lack of time prevents me from doing so, and I leave the subject for you

to ponder on.

Life Insurance Companies carefully calculate the expectancy of applicants who present slight evidence of being below the standard, and consider such cases as bad risks. They figure the danger, not from

disease alone, but that the resisting powers in acute illness or injury, are so much impaired, that such an individual would succumb to an injury or an illness, when another would recover. Fifteen per cent. of all applicants are rejected by Insurance Companies on account of such evidence.

There are seeds sown in early life, by habit or accident, that wait for a favorable condition to germinate and grow.

Why should not we consider any case that comes into our care, from this standpoint? Are we any more bound, in honor, to the patient than to the company?

Remember that corporations use every endeavor to prevent accidents and usually do all in their power to ameliorate the sufferings of the injured.

Remember the past history and the condition of the patient, and remember that we are not always careful in avoiding injury.

With us the question of law suit often rests, and we should always carefully weigh the evidence and give nothing but honest advice. Do not, as many have done, make an attempt to get damages because it will mean a positive payment of your bill, if the claim is held valid in court. Depend on your pay, in this case, as you would in any other case, on the patient himself. To him your services were given, and to him look for your pay.

If at heart you believe a man responsible for his own condition, you are not justified in aiding him to a verdict. If called to the witness stand, you should give your honest convictions in evidence,

nothing else.

And, to go further, any physician who takes part in any scheme to mulct a corporation in any fake case, for what they may swindle the corporation out of, is just as dangerous to us, respectable practitioners, as is a thief in any respectable community, and should be shunned and treated as such by us.

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CONGENITAL ELEPHANTIASIS.

(Report of a Case.)

H. R. VARNEY.
Detroit.

Sporadic cases of chronic hypertrophy of the skin and sub-cutaneous tissue, classified as Elephantiasis, are rarely seen in the United States.

For hundreds of years, this term has been applied to any extensive hypertrophied condition of the skin-connective tissues, and in many cases it has no doubt been misapplied.

The pathological processes differ so greatly in the sporadic cases from those of the endemic, that a consideration of the congenital type of this disease, with the report of a case, will be the subject of this article.

This type differs not only in its origin but in its general symptoms. The hereditary tendency of this disease has been shown by recorded cases. Nonne reports four cases in one family, the disease appearing in the same locality on the body of each member of the family. Moncorvo also reports congenital cases, one of which, the grandmother, had repeated attacks of lymphangitis, yet the mother was entirely free from the disease or any of the predisposing diseases, though she gave birth to a child afflicted with unilateral elephantiasis, supposed to have been caused by a fall during pregnancy. Barwell, Coley, Wende, Jopson, and others all report congenital cases.

Virchow describes a congenital form of this disease which he attributed to overnutrition. It was characterized by increased vascular supply to the affected area, which he termed "Elephantiasis

Telangiectodes," or Naevoid Elephantiasis.

On Oct., 1903, the patient whose case I am about to report, was referred to me: Miss E. S., now 18 years of age; American born, always lived at home; general health good. There is no history of any such condition existing in either maternal or paternal branch of family. During pregnacy, the mother had fits of an epileptic nature. Other children are normal and healthy; mother's health is good; labor during birth of this child was normal.

At birth, both mother and nurse noticed a slight enlargement of the end of the middle finger, on left hand, with no unusual discoloration. Little attention was given this abnormal condition during childhood, though there was a very gradual increase of the enlargement, extending up the fin-



ger. The condition, as first seen by me, is shown in the photograph. On first inspection one would conclude that a dis-

eased condition of the bone existed, as the finger with the groove along its center had the appearance of a supernumerary finger.

However, the accompanying Radiograph shows there was no change in the



bone structure, thus excluding Acromegalia. There was marked hyperplasia of the skin and connective tissue, which could not be pitted with pressure. The enlargement extended above the wrist with numbers of Keloid-like tumors upon the back of the hand and wrist.

At this time, the middle finger of the affected hand was three-quarters of an inch larger in circumference than the corresponding finger of the other hand, and the wrist of the diseased hand was one inch larger than the other. The diseased area involved the fore-finger, the inner half of the ring finger, and the back of the hand and wrist. The thumb and little finger were not affected. The patient complained of loss of power of the hand, and a feeling of great weight, but never any

pain. There was almost entire loss of the sensation of touch in the middle finger, but only partial loss in the ring and fore-finger.

Examinations of the blood were made at midday and midnight. There were no traces of filaria sanginaris, and the urine was normal.

The etiology of sporadic Elephantiasis is varied. Cases develop this type of diseases from many causes. Any pressure upon the veins and lymphatics is considered an etiological factor.

This same etiology holds good in the congenital cases. Some injury to the mother, during pregnancy, is transmitted to the unborn child, causing an inflammation, or producing in some localized area hypertrophy and overgrowth of the subcutaneous tissue.

In the congenital cases reported by Moncorvo, he advances the explanation that from injury to the mother, streptococci found their way into the fœtal circulation, through the placenta, and thereby produced tissue changes.

Wende states in reporting his case of congenital elephantiasis, of which careful microscopic examinations were made, that no definite conclusion could be determined upon. The etiology of this disease, according to some authorities, is due to many distinct causes, while other investigators agree that it is the direct result of hereditary syphilis.

The cause of congenital elephantiasis is truly difficult to get at. In adult life, it is the result of recurrent inflammatory conditions, or obstruction of the lymphatics, and this must be true in the congenital type.

The treatment of these progressive, deforming congenital cases is of great importance. It consists of that which will best counteract the cause and its complications.

When the cause of the obstructive condition can be discovered, as in growths of different nature, both surgical and internal treatment can be given, with marked results that are permanent.

In the case I have reported, conservative treatment was indicated; for if the progress of the disease could not be checked, total loss of the use of the arm would follow, with ultimate amputation.

The most startling, successful treatment of this disease is reported by Thomasz. He treated 29 cases with calcium sulphide given internally, in increasing doses, and iodoform ointment applied locally, the diseased parts being tightly bandaged, and patient kept at rest. All recovered, and only one case recurred. Stelwagon states that he has been unable to find a report of similar treatment given, either favorable or unfavorable.

The reports of successful treatment are mainly of cases that are seen early, when the cause is easily removed. This is not so in cases of the congenital type, the history of which is obscure, or in those which have existed for many years.

From results obtained in similar diseases, as Keloid, Verruca, and Scleroderma, I was led to believe that the Ray treatment might be beneficial in the case which I am reporting. We know that long continued, moderate exposures of the normal skin will cause atrophy of the hair bulb, and wrinkling of the skin, more marked in all hypertrophic diseases involving the skin and connective tissue.

Under Ray treatment, sensation returned in the affected area, and Keloids disappeared in the hypertrophic tissue. Careful measurements were made, weekly, and

showed marked diminution in enlarged condition. This treatment is the only one to which the disease has responded in an encouraging manner. All literature on the subject agrees that this congenital form is the most rebellious of all types of the disease.

Mascat reports and exhibited a series of photographs of a patient with Elephantiasis, that had completely recovered under X-Ray treatments.

CONCLUSIONS.

- 1. The congenital type of the disease is rare.
- 2. It differs in origin and general symptoms, with no recurrent inflammatory reaction. Yet is is progressive.
- 3. A history of injury in utero in this case might have been an etiological factor.
- 4. The causes are as a rule, obscure, rendering prognosis as to treatment, guarded.
 - 5. The Ray treatment should be tried.

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TUBERCULOSIS.*

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Howell.

It is now agreed by those who have given the most attention to the subject, that tuberculosis occurs and ends in recovery far more frequently than was formerly supposed. Osler says, in a recent lecture before the Phipps Institute at Philadelphia, "The germ of tuberculosis is ubiquitous; few reach maturity without infection: none reach old age without a focus somewhere." Farther on he says, The only series which we have dealing with this question in a satisfactory way is in the study of 500 post-mortems in Prof. Ribbert's Institute in Zurich, by Naegeli. It is to be borne in mind that in his work special examination was made of every organ of the body, sections were made of all parts with the greatest care, and the individual lymph glands particularly inspected. Tuberculous lesions were found in 97 per cent, of the bodies of adults. He gives a very interesting curve showing the incidence of different ages. Up to the fifteenth year there was only 50 per cent., then there was a sudden rise in the eighteenth year to 96 per cent., with a slow rise, so that by the fortieth year a tuberculous focus was found in everybody. This careful research demonstrates the extraordinary susceptibility in man to tuberculous infection, and an equally extraordinary degree of resistance. In the tuberculin experiments of Franz on healthy Austrian soldiers a reaction was shown in over 60 per cent., so that we must accept the conclusion that tuberculous infection, latent tuberculosis, is more extensive than the manifest disease. He says that von Behring refers all tuberculosis to milk, either from tuberculous cows or containing germs received from the air; that a focus is formed generally in childhood, and remains latent until under favorable circumstances it develops into active tuberculosis. Osler does not fully endorse these views, but thinks that the germs are usually received with the inspired air, and where they gain a foothold enter at once upon their work, which is much or little, according to the soil in which they find lodgement.

In view of these differences we may perhaps be forgiven for asking: since a focus frequently forms in childhood and remains innocuous during all the vicissitudes of a long life, and since all are affected by it, at least once, why is it not more frequently repeated in either case, and may it not be that recovery, as in the case of most very contagious diseases, confers a large measure of immunity? This would certainly be a more comforting view than that of latency. Furthermore, since it is proven that practically all childbearing women are tuberculous, what need is there to make a scapegoat of the dairy cow? If, as Koch affirms, human and bovine tuberculoses are not the same, then the cow is not at fault; but if as others affirm, they are identical, then the same conditions would occur in each. many of the cows that respond to the test have anything but latent tuberculosis? Practically none, except those that furnish manifest symptoms of the disease. If the milk of cows, with their small per cent. of reaction is dangerous, how much more

^{*}Read before Livingston County Medical Society, March 8th, 1904.

dangerous is human milk, and to what are we coming? If a tuberculous mother will carry a fetus for nine months, furnishing from her own system everything that enters into it, and with their circulations scarcely separated, without infecting it, is it reasonable to suppose that she will afterwards do so through the mammary gland and digestive tract? Too many mothers with advanced tuberculosis have nursed their offspring without infecting them, to indicate that nature has made the mammary gland an instrument for conveying disease. Is not the germ-laden air a medium sufficient to convey the bacillus to the exact spot that it is looking for?

Experience and reason both teach that tuberculosis cannot be successfully attacked by systemic medication. The tubercle is non-vascular, and nature's favorite method of cure is to surround it with inflammatory material, forming an inclosing wall which cuts off all supplies, and contracting, forces out the more fluid portion and reduces its volume, so that all osmosis is in an outward direction. complicating disorders may frequently be helped by medication, but the prolonged administration of medicine is as likely to do harm, and the complications as well as the original disease are usually best treated by rest, fresh air (cold preferred), sunlight, feeding and properly regulated exercise. These are best and most successfully applied in a sanatorium.

It is difficult to separate one's self from your environment, and hence environment counts for much in tuberculosis. When we consider how worry and apprehension destroy appetite and disturb digestion, we see the difficulty of inspiring with the necessary hope and courage and at the same time convincing the patient that his condition is so serious as to require him to do

such radical things. He will try it for a while and then either get discouraged or more likely consider himself well enough so that it is no longer necessary. Could I order my sick son to sleep out in a snow storm, or with the thermometer at 20° below zero? And if I did, would he not either consider it cruel or be filled with apprehension at having a disease that called for such radical measures? And yet, at the sanatorium he enters into the spirit of his surroundings and does it from choice. We read of isolated individuals doing this and being greatly benefited by it, but it is those who have reached desperation after loss of the most valuable time and opportunity by the failure of other measures. It is wholly impracticable to send an inexperienced consumptive away from home except to a sanatorium. The great west has its fill of consumptives and none are wanted unless at such institutions. If received elsewhere, they are packed in with others of their kind in the most unsanitary manner. A recent writer in relating his own experience said that he could not have been worse treated had he been a leper. The situation at Liberty, New York, will serve as an illustration. The town has acquired a reputation as a health resort. There are two sanatoria in the town, an older and larger, the Loomis, two and one-half miles out, and a Jewish one a little farther on. The town is swarming with consumptives. A consumptive physician whom I met at the Loomis Sanatorium told me that he came to Liberty for the local advantages and stopped at the best hotel, feeling that he was able to care for himself, but saw so many consumptives violating every sanitary law that he felt his only safe place was in the sanatorium. A former resident here, now living near Liberty, whom I visited when there, said that nearly every occupied house in Liberty had boarders, that the average number for good-sized residences was about twenty-five; that these were packed in in almost any way, and that the uniform rate was seven dollars a week each.

Is the sanatorium safe? Yes, absolutely so, because everything is absolutely under regulation. No one is allowed to expectorate anywhere except into a sputum cup which each must have and deliver daily for the disposal of its contents. A cup with an exchangeable paper lining is used in the rooms, and an aluminum pocket flask for outside. Dr. Trudeau, the founder of the oldest sanatorium in America. at Saranac Lake, New York, says that no employe of that institution was ever known to acquire tuberculosis there, and that the dust taken from all the buildings has failed except in one instance to infect guinea pigs.

The Loomis Sanatorium consists of a large group of buildings located on the southwest shoulder of a small mountain of the Catskill group, two and one-half miles from Liberty, Sullivan County, New York. It is shielded from the northeast winds by the mountain top and receives its southwest winds from the mountains of Its average elevation is Pennsylvania. 2200 feet. The principal buildings are the administration building, which is a firstclass hotel, containing the dining rooms, the physicians' and other administrative offices and accommodations for employes and transient guests; a chapel; the superintending physician's residence; a casino, containing a piano, an organ, a billiard table, a pool table, and opportunity for nearly all indoor games and amusements; a highly artistic library building containing most of the leading periodicals and

over 3000 volumes of well-selected books; numerous cottages for the patients, each having a veranda on the south side where they can sit or recline in the fresh air and sunshine, read or play games, or sleep out at night; a reception room; a bath room; and a bedroom for each occupant, heated by hot water and lighted by electricity; the Annex, somewhat apart, for the care of the five-dollars-a-week patients; and last, but best of all, the infirmary, for here the most important work is done. It is here that the new-comers and worst cases are treated until well enough to go to their cottages. It has a veranda along the south side and other necessary The room in which the conveniences. patient is put to bed for absolute rest, fresh air, as cold as may be, and careful watching and feeding, is about ten feet square, with a closet partitioned out of one cor-The bed is in the opposite corner, and a door between admits from the corridor. At the foot of the bed is a radiator, and opposite, in the space between the closet and south wall, a dresser. Between these are double sash doors, open upon the These doors are kept wide open, regardless of the weather, except white eating, bathing, etc., and on sunshiny days the bed, which is on small wheels, is rolled out on the veranda. Here, especially when cold enough, the temperature is reduced and the appetite promoted. and these, with the rest, increase the weight and vitality until the patient has a good start on the road to recovery where that is possible.

As the infirmary patients and the worst cases in the cottages do not go to the dining rooms, and as increase of flesh, blood and color results from treatment, a healthier and happier-looking group can scarcely be found than in the Loomis dining rooms.

How different the picture from what is popularly imagined of such places!

The old nutrients, cod-liver oil. malt and whiskey, almost pure carbohydrates, have been eagerly laid aside, and now some seem inclined to the other extreme and feed very largely with meat, milk and eggs, which contain a large excess of protein. It would seem that this if carried too far, might throw too great a burden upon the kidneys, if, indeed, it did not also impair digestion. advocate the balanced ration. The plan at the Loomis seems to be to provide a liberal variety of well-prepared, nutritious food, and allow the patient to make his own selections. This is probably the best plan, for in the scientific feeding of cattle, especially dairy cows, where the results can be determined with much accuracy, it is found that the best results are produced from the balanced ration; but it is also found that, if given sufficient liberty of choice, the cow will select the balanced ration as accurately as a chemist could, and she will eat more, digest it better, and yield better results if her appetite is fully consulted.

What is hunger but the voice of the system proclaiming its needs? And has nature filled that voice with lies? Has not nature made all unwholesome, organic things obnoxious to the senses? Poisonous mushrooms would seem an exception, but they have an acrid taste and unpleasant odor. It is by frying in butter with salt and pepper that these are smothered and the mischief done. Tyrotoxicon occurs only under equally artificial conditions.

While the sanatorium treatment of tuberculosis is much the best thus far devised, it is but the first step in the right direction. Its limitations are too great, and its agencies too little under control. An

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expensive and fatiguing journey must often be taken to reach a suitable place for treatment, sometimes only to find the conditions prove unfavorable. The altitude that is so beneficial to-day may promote a serious hemorrhage to-morrow with no possibility of change until the patient can rally sufficiently to abandon the place and, perhaps, with it, hope. The cold which is so beneficial, cannot be had at all seasons except at altitudes too great for safety for diseased lungs. The sunlight, which is so helpful, is too inconstant, and the best ventilation is too dependent upon the fickle wind. A germ-free air is needed, for while the bacillus tuberculosis is the pioneer and orginator of the disease process, the saprophitic and pyogenic germs are the principal offenders. All of these difficulties will eventually be overcome, however, and sometime tuberculosis will be much more successfully treated in any locality than in the most favored places now.

Let us build an air castle and after it is completed we may consider whether the idea might ever materialize in an actual structure for the treatment of tuberculosis with pure air, or must, like other air castles, remain the fleeting fancy of a pleasing day dream.

We will build an infirmary much like the one above described, but the ceiling will be only high enough to clear a tall person's head. The bed will be as high as practicable so as to bring the patient up toward the ceiling. There will be no outside doors or windows, and the door into the corridor will be as tight as possible. We will make an opening in the ceiling, over the patent's head, connecting with a blower, somewhat like those in factories which convey the sawdust, shavings and chips from the machines to a central place

of deposit. With this we hope to catch the breath as it rises, lighter than the air because warmer, and convey it away from the room. Beneath the bed we will have a register for receiving fresh air. before arriving at the register, the air were first passed through finely broken quicklime, it would be largely freed from carbonic acid and moisture. If then passed through cotton wool it would be filtered of dust and germs. If then passed through a conduit surrounded by ice and salt, it could be reduced to the freezing point, and when taken in at the register it would be cold, dry, germ-free, and with a high per cent. of oxygen. The resistance resulting from these processes while the blower was driving the air from the room would create a measure of rarefaction which could be under control. Since radiotherapy seems to possess the virtues of sunlight, with perhaps some added powers, it may become a valuable aid.

The time in the infirmary could probably be profitably prolonged, for Dr. King, physician-in-chief of the Loomis Sanatorium, told me that his worst handicap was the difficulty in keeping patients in the infirmary long enough. They wish to save the extra dollar a day, besides which there is the feeling that going out of the infirmary is proof of improvement.

But these things are expensive? Yes, and so are funerals, and so are orphans, and time, indeed, is money and even many times more than money in the treatment of tuberculosis. The poor cannot afford it? No, the poor cannot afford consumption. It lasts so long that even the half charity five dollars per week at Saranac Lake and the Loomis Annex is beyond the reach of the great mass of consumptives. Too many of them could not raise money enough to buy the ticket to take them there if it cost them nothing afterward.

Then must the poor passively die because they cannot pay the price? Must they linger, perhaps for years, wasting in worry and want, dependent upon those who can ill afford to provide for them, or on public charity, helping to fill the air with germs and endangering the lives of others?

The state of Michigan, with a climate especially conducive to tuberculosis, owes it to humanity and the common good, to construct either within its boundaries or at some suitable place outside, a sanatorium for the treatment of tuberculosis, with the same financial provision as for the insane. for both affect the common good, and each is too great a burden for the individual to bear.

Thymic Tracheostenosis.

Conclusions:

1.—In all cases of laryngeal stridor, it should be determined whether or not the thymus is

2.-On account of surgical shock being badly borne by infants and especially those in this condition, if the symptoms are not urgent, postural treatment should be tried, and if in any position of the head or neck, the relief is afforded, that position should be maintained by suitable apparatus until nature has effected a cure by enlargement of the thorax, strengthening the tracheal rings and diminution in size of the gland.

3.—Intubation, tracheotomy and artificial respiration do no good.

4.—The surgical procedure of opening the

mediastinum, bringing forward the gland and stitching it to the tissue over the sternum, should be performed immediately if there is danger of asphixia.—(Medical Record, April 2, 1904. W. W. CARTER).

The Value of Operation in injuries to the Spinal Cord.

1.-It removes depressed fragments of bone apparently lying against the cord.

2.—It removes blood-clots.

3.-Allows the escape of exudate and makes room for inflammatory thickening.
4. Relieves pressure if extensive hemorrhage

is present.

5.-Gives greater space where there is excessive traumatic spinal oedema.—(Annals of Surgery, April, 1904. S. J. MIXTER and. H M.

SMALLPOX AND VACCINATION.*

C. H. BAKER, Bay City.

At present the world is being scourged by one of the wildest spread and at the same time mildest epidemics of smallpox of modern times.

Because of the long immunity from severe epidemics the public seems to have forgotten the horrors of former ones and to be more than willing to listen to the misguided fanatics who are trying to discredit the only efficient preventive, namely, vaccination.

Smallpox is an acute infectious disease of man which is cummunicable to lower animals. It occurs in cattle, horses, sheep, swine, goats and monkeys and is capable of being transmitted from one of these animals to another; from them to man and vice versa.

This disease was described in very early times and owing to the susceptibility of all races, sexes and ages, in all climates and conditions of living, is the most loathsome and fatal known.

It is found in palace and hovel alike; it destroyed Louis XV of France; the emperor of Mexico, and it maimed and disfigured for life William III of England, and killed his wife and several members of his household.

Before vaccination was discovered half a million persons died yearly, in Europe, from this cause alone; one-tenth of all deaths in France were due to it, and La Condamine wrote that: "Among those who outlive it, many either totally or partially lose their sight or hearing, many are left consumptive, weakly, sickly or maimed; many are disfigured for life by horrid scars and become shocking objects to those who approach them. Immense numbers lose their eyesight by it."

Macauley in speaking of smallpox in England, says: "The havoc of the plague has been far more rapid, but the plague visited our shores only once or twice within living memory, but the smallpox was always present, filling the church yards with corpses, leaving on those, whose lives it spared, the hideous traces of its power, turning the babe into a changeling at which its mother shuddered and making the eyes and cheeks of the betrothed maiden objects of horror to her lover."

In the sixteenth century smallpox destroyed three and a half millions of the inhabitants of Mexico within a very few years, leaving in some places scarce enough people to bury the dead.

Iceland was invaded in 1707, and eighteen thousand, out of a total population of fifty thousand, perished that year.

Greenland in 1734 lost a third of her population; like mortalities were caused in Quito, Brazil, Ceylon and Siberia; while whole tribes of the natives have been annihilated in America.

In the century before the discovery of vaccination, smallpox killed in Europe more than fifty millions of the population.

Among the unvaccinated smallpox is most frequent in children so that it was classed with measles, scarlet fever, etc., as one of the children's diseases and in some countries received names accordingly, as children's pox and pox of the small.

^{*}Read before Bay County Medical Society, March 21, 1904.

It was eminently fatal in childhood, only ten per cent. surviving below one year of age; twenty-five per cent. under five years and fifty per cent. below ten years.

Such was the state of affairs up to 1768 when Edward Jenner first observed that milkmaids who milked cows having cow pox contracted a similar disease on their hands which subsequently protected them from smallpox.

For thirty years he studied and experimented and in 1796 made the first vaccination of a human being, publishing his researches two years later and establishing the first vaccination station in 1799.

Anti-vaccinationists were more numerous then than now, and a storm of ridicule assailed the practice.

Pictures were made representing those vaccinated as having miniature cattle, growing out on the site of vaccination in different parts of their bodies, and horns and tails growing.

The practice soon spread to France, Germany and the United States and became quite general, although it has been estimated that not above fifteen per cent. of the people in this country have received vaccination.

During the thirty years next before the introduction of vaccination, among twenty-five countries and provinces which had reliable statistics, the death rate from smallpox averaged two thousand eight hundred and eighty-two in the million while afterwards it dropped at once to two hundred fifty-nine per million, making the mortality less than one-tenth what it had been.

In Sweden, the year before vaccination was introduced, there were five thousand one hundred deaths in the million, and afterwards it declined until in twenty-five years the rate was only twenty-five persons in a million.

In Berlin during the twenty-four years before vaccination the death rate from smallpox was three thousand and four hundred twenty-two per million and the next forty years it was only one hundred seventy-six.

If, as the anti-vaccinationists claim, this is a disease caused by filth alone, it is inconceivable that vaccination should have so suddenly changed the habits of whole nations from the dirtiest to the cleanest people on earth and it is left to the "antis" to prove their case.

No doubt the general improvement in hygiene has had some influence in diminishing smallpox, but if this had been the sole cause of the sudden drop there should have been a corresponding drop in the rates of mortality of similar disease as measles, scarlet fever and diphtheria.

Careful statistics show no corresponding drop at that time and only recently have we had a brilliant example of a similar sort in the case of diphtheria whose mortality took a like drop after the introduction of antitoxine.

As showing the influence of compulsory vaccination: in the twenty-six years after it was adopted in Massachusetts there were only thirty-seven deaths from smallpox in Boston and most of these at the immigrant station, while in the twelve years following repeal of the law there were five hundred and thirty-three.

In the Prussian army where vaccination is rigidly enforced there has not been a death from smallpox since 1874.

At first it was thought that vaccination would protect from smallpox throughout life but this was soon found not to be the case.

The completeness of the protection varies according to the perfection of the

vaccination and the normal susceptibility of the patient, some persons being very liable to contract the disease on slight exposure while others escape after much closer contact. Thus one case has been reported of a woman who had smallpox three times and who had been vaccinated successfully three times; yet, on the other hand, unvaccinated soldiers have had men break out with the eruption of smallpox while sleeping under the same blankets without contracting the disease.

One case of extreme resistance to vaccination is reported in which the effort failed twelve times and was successful the thirteenth.

Possibly such a person would be equally resistant to smallpox, but such cases are so rare no one would refuse vaccination on the chance of being one of them.

For most persons the rule holds good, first: that one complete vaccination is absolute protection against smallpox for not less than five years.

Second: complete vaccination causes the attack to be mild no matter how long after vaccination smallpox may be contracted.

Third: one perfect vaccination is absolute security against death by smallpox.

Experience shows that if vaccination is done in infancy; again about the twelfth year and again on attaining adult life there is practically no risk of contracting the disease. The employees of the health department of Chicago are vaccinated and revaccinated until the susceptibility to vaccine is exhausted and they then handle smallpox patients with impunity; not a single one of them having contracted the disease in the last ten years. The same thing is done with the medical students who study the cases in the detention hospital. Over six hundred of them have

attended in ten years and there has not been a case among them. The thirty-two hundred policemen of the city are all immunized in the same way with the same results.

Vaccination on entering school and again seven years later has been given 265,000 school children in that city with the result that only seven cases of the disease have occurred among them and all the seven were in school with false certificates of vaccination. One child was in school two weeks broken out with small-pox, without another one of the children taking it, and he was found to have a false certificate also.

The most convincing test of the efficiency of vaccination ever made was that in the town of Milton, Mass., in the year 1809.

Twelve children who had been successfully vaccinated in July were sent in October to the inoculation hospital, where each was inoculated with the virus direct from a case of smallpox. At the end of eighteen days every one was dismissed, not one having had a single symptom of the disease.

No unprejudiced person can study the statistics of smallpox and vaccination without reaching the conclusion that the latter has materially lessened the virulence of the former and reduced the mortality to a tenth its former amount and the question then arises whether we have exchanged one evil for others as bad or worse.

Arm to arm vaccination may have transmitted disease in some instances and because of the possibility has fallen into disuse and the surer and better managed bovine vaccination has taken its place.

Inquiry among the physicians of this city who have had wide experience with vaccination, asking how many cases they have seen in which some disease followed vaccination which was in any way caused by it, received the answer in all cases "not one."

If proper antiseptic precautions are used in vaccinating, such as would be used in any minor surgical operation, and the patient will obey the simplest rules of cleanliness and properly protect the sore from injury and dirt, there should never be even a hint of blood poisoning and there will rarely be disturbance sufficient to interfere with one's usual occupations.

Other diseases have other causes and cancer and tuberculosis are no more caused by vaccination, as has been charged, than potatoes or mushrooms are produced by radish seed.

There are plenty of establishments producing pure vaccine at present so that with pure vaccine and a clean arm there is no reason why blood poison need ever occur from vaccination.

We are confronted at present by an uncontrolled epidemic of smallpox and it is pertinent to inquire if the best means for stamping it out are being used.

If all patients attacked by smallpox were brought to one place under the care of skilled attendants it would simplify the problem greatly from the present condition in which each house where smallpox occurs becomes a pest house protected only by a yellow card tacked on the front of the house; the rear left free for the ingress and egress of the inmates and the unfearing public.

Thus each becomes a center of possible contagion which all too readily contributes its quota to swell the number of new cases.

Disinfection would be simplified; quarantine could be enforced; the expense of caring for patients would be divided by ten because it would not be necessary to feed six well persons for one with the disease, and one nurse being able to care for so many more, and the physician likewise, would still farther diminish the expense.

For one-third what it cost this city and county last year land could be bought and pavilion hospitals built and maintained sufficient for all the cases which have occurred and there is no good reason why a tenth part of the number should have been seen. Free vaccination enforced on all school children and on all adults who have been exposed to the cases as they have arisen, together with a campaign of education of the public as to the benefits and absence of danger from vaccination would long ago have wiped out the disease in our midst and we should have been spared the danger and disgrace of over a hundred and fifty cases existing at one time in our city and county.

Dietetic Management of Diabetes.—There are two reasons given by the writer why the complete withdrawal of carbohydrates should not be a routine measure, viz.: 1st, because it is almost impossible to adequately nourish the patients unless the carbohydrate is replaced by food equivalents; and, 2nd, because the complete withdrawal of carbohydrates favors greatly acidosis, a condition which precipitates diabetic coma.

For measuring the nutritive value, as each article of food in process of metabolism either generates a certain quantity of heat or its equivalent in labor, the term calorie, representing the amount of heat required to raise the

temperature of one kilo of water one degree, is used:

¹ grain of proteid yields 4.1 calories.

¹ grain of carbohydrate yields 4.1 calories.

¹ grain of fat yields 9.3 calories.

A normal adult requires from 30 to 35 calories per kilo of body weight a day. In diabetes considerable caloric value is lost by the excretion of the sugar which should be accurately replaced. In the great majority of cases of diabetes, the patient can utilize some, but it is bad practice to give so much as to fatigue the sugar destroying function.—(Jour. of Am. Med. Assoc., March 26, 1904. A. C. CROFTON).

The Journal of the Michigan State Medical Society

All communications relative to exchanges, books for review, manuscripts, advertising and subscriptions should be addressed to Editor A. P. Biddle, 57 Fort Street West, Detroit, Mich.

Subscription Price, Two Dollars per year, in Advance

MAY, 1904

Editorial

THE BIOLOGIC TEST FOR THE BLOOD.

It has always been a delicate problem to differentiate human from animal blood. Yet when life often hangs in the balance as a result of such a differentiation, anything that will add to the surety is worthy a careful consideration. The guaiacum and haemin tests have their uses and the information obtained by the microscope in measuring corpuscles, etc., is also valuable, but in spite of these there has always been a certain amount of "reasonable doubt" about the results.

Since our knowledge of serum immunity has been extending, it has been found that the injection of foreign elements into an animal of one species produces in an animal of another species substances which are antagonistic to those injected, the socalled antibodies. Serums have accordingly been obtained which have the property of agglutinating and destroying red blood corpuscles, the haemoagglutinins, and the haemolysins, similar to the familiar typhoid agglutinating reaction. Valeó has formulated the following law: "If animal A is inoculated repeatedly with an albumenoid material derived from an animal of a different species, B, the serum of the animal A acquires the property of precipitating in vitro albumenoid solutions derived from the species B."

more widely separated the species are from one another, the more characteristic is the reaction.

Bordet and Tchestovitch were the first to put this to a practical test in the identification of bloods from different animals, but it remained for Uhlenhut to use it first for the medico-legal detection of blood.

The method is briefly to inject into the peritoneal cavity of the rabbit defibrinated human blood (usually got from the placenta) at intervals of six or eight days for five or six times. It has been found that the serum from a rabbit treated in this way will agglutinate with human blood only. The preparation of this antiserum requires a good deal of care, but if properly prepared, is reliable. The reaction should occur within twenty minutes, but if it occurs within an hour and the presence of ape's blood can be excluded, the suspected blood is positively human according to Wasserman and Schütze.

Nuttall and Dunkelspiel, after very elaborate studies with antisera of all sorts of animals, give among other conclusions, these: 1. These precipitins are specific although they may produce a slight reaction with sera of allied animals. 2. The test can be successfully applied to a blood which has been mixed with that of several animals. 3. We have in this test the most delicate means hitherto discovered of detecting and differentiating bloods.

Rather recently A. Robin* has used this method in the murder case, Del. vs. Elmer Collins. The court accepted this test as reliable and charged the jury according to the findings. Robin says that after studying the voluminous literature on the subject and conducting his own experiments, he is convinced of the specific na-

^{*}N. Y. Medical Journal, Mar. 5 and Mar. 12, 1904.

ture of the test and believes that discrepencies found in the different authors are due to faulty technique and not to the test itself.

HARRISON D. JENKS.

DO PRESCRIBING OPTICIANS PRACTICE MEDICINE?

This long-mooted question has been decided in the negative by the Supreme Court of Illinois. The decision was on appeal from the Appellate Court by the Illinois State Board of Health, in a case in which it sought to debar an optician from treating defective vision and its associated disabilities. Both courts admitted that the optician claimed to correct visual defects, but affirmed that such correction was not practice of medicine. The Supreme Court further said that the optician's claim to benefit or cure headaches, blurring, itching and burning, etc., of the eyes was not practice of medicine.

It would seem that a minimum of common sense would discredit this decision. If practice of medicine is not the application of means for the relief of physical defects and infirmities, what name may be given this pursuit?

We suspect that the decision rested on the intention of the courts to side with the people. For hundreds of years the people have selected their glasses by guess, and are unwilling to have this privilege curtailed by a law which would compel them to resort to a skilled physician when eyesight failed. Their fathers and their fathers' fathers were served well by this primitive method and why not they? Probably the very judges of the courts secured their glasses in this manner.

Modern ophthalmology has placed the treatment of ocular defect on a more scientific basis, but neither judges nor the peo-

ple have practically learned this fact. Since this is a country in which majorities rule even the courts, we may expect decisions like the one quoted. The remedy is such education of the people that they may realize the advantages of a scientific study of all defective eyes ere purchasing glasses.

The prescribing druggist belongs to the same class as does the corner grocer or the department store selling proprietary medicines. These and their like are relics of a by-gone condition, still lingering and controlling the habits of the masses.

If medical organization directs its efforts to an education of the public, to a knowledge of the waste, danger, and expense to them of such habits, the majority will finally be wiped out. The struggle will be severe and protracted, because most lives are the unthinking reproduction of their ancestors—all changes are resented that go below the surface.

That fraud, ignorance and superstition are the active agents in the prosperity of every prescribing optician or druggist, etc., is well known, so is the traffic in abortion, infanticide, and other agencies clearly antagonistic to the wholesome life of every community; but they can only be uprooted by turning into different channels the currents of human life. Each physician who teaches the real facts to the people who trust him, can contribute to the victory of science over guessing, of knowledge over ignorance, of honesty over dishonesty, and so conserve to his following the largest possible good.

TYPHOID FEVER AND PREGNANCY.

The study of infectious diseases, as influenced by pregnancy, and of pregnancy when complicated with infectious diseases. has always been interesting to both internists and obstetricians. In reporting an important case in a recent paper, Lynch* reviews our knowledge of the association of pregnancy and typhoid fever.

The study of typhoid fever during pregnancy began with the observations of Louis in 1829, while Cazeaux in 1844, was the first to discuss the subject in a work on obstetrics. Cummins reported several cases in the Dublin Medical Journal in 1859. Since then many German papers have appeared on the subject and it has been a popular one for French thesis.

According to Lynch, there are not many reliable statistics on the frequency of this association. Curschman, in 1817 cases of typhoid in female patients at Leipzig and Hamburg, found 45 cases (2.5%); Goltdammer noted 26 in 640 (4%); Martinet 16 in 460 (3.5%), and Osler 4 in 289 (1.4%). Thus for a total of 3206 female patients pregnancy and typhoid co-existed in 91 instances, or less than 3%, but these statistics include the young and the aged as well as the women in the child-bearing age.

It was formerly held that pregnancy affords a protection against typhoid, but later observations during epidemics in small towns, show that pregnant women contract the disease in about the same proportion as the non-pregnant. Sacquin has collected and made a careful study of the cases in the literature, coming to the conclusion that abortion occurs most frequently in the third month of pregnancy and during the second week of the fever. There have been various theories proposed to explain this tendency to abortion. Claude Bernard and Max Runge** be-

lieved that the prolonged high temperature causes first the death of the fœtus and subsequently contractions of the uterine musculature. Goltdammer advocated hemorrhagic endometritis as a factor, but this view has not been supported by subsequent observations. Sacquin believes that the abortion is due to the action of toxic substances of the medullary centers, a theory considered by Lynch as most probable.

Experimentally, the typhoid bacillus has been proven to pass from mother to fœtus in guinea pigs and in rabbits, and there are about twenty cases on record in which this has been demonstrated in the human race. In many other cases, cultures made from the fœtus have been negative, so that it is the generally accepted dictum that there must be some lesion of the placenta which allows of the transmission of the microorganisms, although such has not been proven in all cases.

B. R. SCHENCK.

HYDROTHERAPY.

"The Medical Baths," an institution for giving rational hydrotherapy, was opened in Boston, December, 1903. This was made possible through the generosity of many of the physicians and laymen of that city. The medical profession own and manage the institution, devoting any surplus income to improving the establishment. At present it consists of a reception room, five small and one large treatment rooms and a douche room with a Baruch apparatus. Treatments are given by graduate male and female nurses.

Those familiar with the facts, know that the physiological and clinical studies of Winternitz have placed empirical water treatments on a scientific basis, so that we are now able to predict the action of a

^{*}J. Hopkins Hosp. Reports, vol. x.

^{**}Arch. f. Gyn. Bd. xii. s. 16.

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definite hydrotherapeutic procedure in a given case with as much certainty as we can that of strychnia or morphine.

Cohen urges that every city have an establishment to which physicians might refer their patients with a definite hydriatic prescription, just as they now can send them to to the druggist with a definite pharmaceutic prescription.

There are now plenty of institutions whose prosperity depends upon the empirical use of these baths, but whose methods render them objectionable. It would seem that the medical profession of the larger cities in this country might wisely enhance the value of their organization by the establishment of such an institution as that in Boston.—(Boston Medical and Surgical Journal, March 17, 1904, J. H. PRATT.

THE THIRTY-NINTH ANNUAL MEETING OF THE MICHIGAN STATE MEDICAL SOCIETY.

The thirty-ninth annual meeting of the Michigan State Medical Society, to be held at Grand Rapids May 25th, 26th and 27th, and the first to extend over three days, gives promise of being second to none in point of scientific worth and attendance.

The attention of the members is directed to the program of the meeting, which appears in this number of The Journal. It will be noticed that the meetings of the House of Delegates and the General Meetings occupy the mornings and that the three afternoons are devoted to section work.

As the business of the Society is left exclusively to the House of Delegates, it is expected that the delegate elected by

his County Medical Society will attend, or if unable to attend, will give ample notice to his alternate.

All the meetings will be held in one building, which the Committee on Arrangements has given assurance is commodious and ample to accommodate all the various sections, committees, etc.

Nothing will be left undone for the social enjoyment of the visiting members. It is expected that U. S. Senator J. C. Burrows will deliver an address on some subject in connection with medical legislation on Wednesday evening, May 25th. On Thursday evening, May 26th, Dr. A. J. Ochsner of Chicago will deliver an address on Appendicitis, which will be freely discussed by members from the various parts of the State.

This is the second annual meeting since the adoption at Port Huron of the revised constitution and by-laws. The task of those to whom has been entrusted the responsibility of the details of the work of organization has been laborious and replete with anxiety, but the results, as embodied in the reports from the secretaries of the sixty County Medical Societies, are gratifying and encouraging. Every member owes it to himself and to these officials to lighten their labor for the common welfare of the profession by his attendance at these annual gatherings.

Grand Rapids extends a hearty welcome to all the members. Let us then lay aside our work for a few days and join with our hosts in the interchange of knowledge and professional good fellowship. A well attended and successful meeting is the best incentive for the work of another year.

The usual railroad rates of one and one-third fare for the round trip have been secured.

Headquarters: "Morton House."

County Society News.

The management of the Journal desires to make the department on County Society News of the greatest possible interest to all practitioners in the State. This can only be accomplished through the assistance of the Secretaries of the various County Societies. It is therefore requested of them that, whenever possible, they send an abstract of the papers read before their Society and the discussions aroused by them. If for any reason this abstracting on the part of the County Society Secretary is impossible, it is requested that the papers be sent to the editor's office where they will be abstracted and returned to the writer. Anything which will be of interest to all in the way of items concerning members, resolutions introduced, etc., will gladly be received. It is only by the persistent cooperation on the part of the County Society Secretaries that this department can reach its greatest usefulness.

ALLEGAN COUNTY.

The regular quarterly meeting of the Allegan County Medical Society was held in Allegan,

An exceptionally able paper on the subject of "Insanity Among Criminals" was read by W. H. Bills, ex-President of the Society, and President of the United Prison Boards of Michigan.

In the afternoon, the Society was privileged to listen to an address on the subject of "Extra-Uterine Pregnancy," by O. E. Herrick, of Grand Rapids, who was present as the guest of the Society.

Abstract-

The speaker related, in illustration of the subject, the history of a case occurring in hospital practice, where a patient was thought to be suffering from a simple exudate on the side of the uterus, the symptoms having been sickness at the stomach, pain in the side, absence of temperature and irregular attacks of slight uterine hemorrhage, independent of the menstrual periods. The patient went into collapse without premonitory symptoms. Stimulation by the usual methods, including saline hypodermoclysis, was unavailing, and the patient died before surgical intervention could be had. The necropsy showed a ruptured tubal pregnancy, with death from internal hemorrhage.

This case is illustrative of the necessity for recognizing the condition of extra-uterine pregnancy early, before the possibility of occurrence of such a catastrophe as that just mentioned.

The symptoms of extra-uterine pregnancy are: (1) persistent pain in the side, at times so sharp as to require opiates for its relief; (2) absence of temperature; and (3) irregular uterine hemorrhages, independent of the menstrual periods. The co-existence of these symptoms justifies an exploratory laparotomy, because: (1) the operation, when properly performed, is devoid of danger; and (2) the life of the patient is jeopardized if the condition is allowed to progress without operative interference.

A large proportion of the cases do not rupture, but the fœtus dies and is absorbed; but during the process of absorption of the fœtus, sufficient adhesive inflammation occurs to glue the tube and ovary to the pelvic floor, thus destroying the function of these organs, so that sooner or later surgical relief must be sought.

These cases of extra-uterine pregnancy terminate in three ways: (1) rupture and death; (2) adhesive inflammation, glueing the tube and ovary to the pelvic floor and thus crippling them; (3) tube may not rupture early, but tube containing fœtus sinks down between folds of the broad ligament and embryo develops for several months; tube then ruptures either into the cavity of the abdomen, when fœtus dies, or it adheres to the rectum and decomposes and ulcerates its way through rectal wall and is discharged per rectum.

Many cases of extra-uterine pregnancy are never recognized, and many cases which are not recognized at the time, but which are subsequently operated on under the diagnosis of pyo-salpinx, are found to be not pus tubes at all, but tube and ovary are found matted together and adherent to the pelvic floor—the relics of an extra-uterine pregnancy.

Diseased conditions of the tubes, such as hydro-salpinx, predispose to the occurrence of tubal pregnancy.

G. G. TAYLOR, Sec'y.

CHIPPEWA COUNTY.

The annual meeting of the Chippewa County Medical Society was held December 1st, 1903, at Sault Ste. Marie. President J. R. Bailey announced that he was not a candidate for reelection and desired to establish a precedent that no president shall succeed himself in office for the reason that it is better for the interest and

effectiveness of the society to have that honor passed around.

After the election of officers, the retiring president, J. R. Bailey, delivered the following address:

On the 3rd day of the twelfth month of the year 1902, the medicine men of the Chippewa, Mackinaw and Luce Band were convened in the wigwam of the Iroquois, by T. A. Felch, the District Councilor and Chief Sachem, who resides în Ishpeming ("High up"), the heaven of the Indians, to adopt a constitution and by-laws, and to transact such other business as the chief directed.

It was not the first important gathering of the heads of clans at the *leap* or *fall* of St. Mary's. Nicolet, the Indian interpreter, convoyed by seven friendly Hurons, sailed and paddled up the river in 1635, to this place, when he was on his memorable journey to the land of the Winnebagos, to make a treaty with them, and many other tribes.

In 1642 Fathers Isaac Jaques and Rayambault planted the cross and established a mission at Sault Ste. Marie.

On the 14th of June, 1671, St. Lueson proclaimed the Process Verbal to the "Achipoes, Malhomi, Poutteatimes," and other Indian nations, and erected a large cross on a hill to produce the fruits of Christianity, and near it, a cedar pole, to which was attached the arms of France, and crying, three times, with a loud voice, the proclamation: "In the name of the Most High, Most Powerful, and Most Redoubtable, Monarch, Louis XIV., of Name, Most Christian King of France and Navare-We take possession of Sainte Marie du Sault, and Lakes Huron and Superior, and Manitoulin Island, and the islands and rivers with the lakes and lands, bounded by the sea of the North and West, and sea of the South and East," twice turning a sod, and crying and causing to be cried in French and Indian, "VIVE LE ROY!"

Then the completion and opening of the canals and locks, in our day, to facilitate navigation, and of the water power canal, is history being made. This point is a pivotal spot, so to speak, on which a great wheel revolves its axle on the falls, pointing towards the zenith, with spokes radiating towards the seas, where the rim revolves, sweeping the productions and commerce of a continent to the given center.

God moves in a mysterious way his wonders to perform. The universe moves; the sun moves; the earth moves; mountains move, continuously towards the sea; the air moves, we know it, breathe it, and feel its force; the waters move.

We see them, and hear the cataract roar. The Soo moves, has moved, is changed and will change. Times are changed and so are we in them.

GEO. J. DICKISON, Sec'y.

INGHAM COUNTY.

OBSTETRICS IN GENERAL PRACTICE.

O. H. FREELAND, MASON.

Abstract.

- 1. Preliminary preparation of patient, if seen some weeks or months before the confinement:
- a. Get and keep her in as good a condition as
- b. Watch condition of her urine.
- 2. Some practical points concerning the confinement:
- a. The physician's hands should be as aseptic as possible.
- b. Cleanse external part of patient with etherial soap and wash with bichloride of mercury solution.
- c. We should not be in too great haste to apply forceps, nor should we delay using them when the occasion demands them.
- d. Oftentimes in the first stage of labor, the patient, more especially if she be a primipara, becomes nervous and hysterical. The os upon examination is rigid and undilatable, while the pains are severe and irregular. In such cases, small and repeated doses of chloral hydrate and sodium bromide in solution gives good results.
- e. Partial anesthesia with chloroform during the second stage is often of much benefit and lessens the danger of tearing the perineum.
- f. The placenta and its membranes should be carefully examined to see that no part has been left within the birth canal.
- g. The patient should always be examined as a matter of routine for lacerations. If any are found they should be sutured at once.
- h. Usually upon the second day it is well to begin giving laxatives.

WAYNE COUNTY.

GENERAL MEETING MARCH 31, 1904.

The following resolution was passed unanimously by the Society:

"The Wayne County Medical Society, representing more than 350 physicians in the County of Wayne, respectfully petition the United States Senate that the Bill for Preventing the Adulteration or Misbranding of Foods or Drugs, and for Regulating the Traffic Therein, and for other Pur-

poses (Senator Hepburn) as amended by the Senate Committee on Manufactures, and now pending before the Senate (calendar No. 1165), be enacted into law at the earliest practical moment. The provisions of said bill are essential to the proper protection of the public welfare and the medical profession stands as a body for the Bill."

Guy L. Connor,

Sec'v.

Miscellaneous.

NEWS ITEMS.

The Wichita Medical Journal and The Western Medical Journal have been merged with The Journal, of The Kansas Medical Society.

The Chairman of The National Legislative Committee has appointed the following committee to formulate a Standard Medical Practice Act:

S. D. Van Meter, Colorado (chairman).

J. R. Currens, Wisconsin.

W. H. Sanders, Alabama.

Emil Amberg, Michigan.

J. A. Dibrell, Arkansas.

The Pennsylvania Railroad have ordered a number of cars which are to be fitted up with all the modern and scientific apparatus necessary to handle the accident cases occurring on their lines. These cars are to be stationed at convenient points, and will be under the control of the various surgeons of the road.

At a meeting of physicians held in Philadelphia, March 28th, the following committee was appointed to effect the organization of The United States Association for the Study of Tuberculosis:

William Osler, chairman.

H. Barton Jacobs, secretary.

E. L. Trudeau.

George M. Sternberg.

William H. Welch.

L. F. Flick.

H. M. Biggs.

This committee will meet in connection with The American Medical Association at Atlantic City this coming June.

On the recommendation of the United States Public Health and Marine Hospital Service, the Pullman Car Company will run on certain days of each week special cars for consumptives from the various eastern cities to the Pacific Coast.

The Virginia Legislature has passed a law forbidding the sale of cocaine except to physicians, dentists and druggists.

Owing to the number of cases of tetanus which have developed after injury from the use of toypistols and the like, the Cincinnati Council passed an ordinance March 17th which prohibits the sale of toy pistols, caps, and blank cartridges to minors. The penalty for violating this ordinance is \$100.

CHANGE IN MEMBERSHIP.

(March 15th to April 15th.)

NEW MEMBERS.

A. J. Bates-Camden, Mich.

Guy Bailey-Mackinac Island, Mich.

C. A. Bartholomew-Martin, Mich.

F. N. Blanchard—1379 W. Fort St., Detroit, Mich.

B. E. Brush-Croswell, Mich.

P. T. Butler-Alamo, Mich.

F. C. Diver-Kalamazoo, Mich.

Chas. Drummond-Painesdale, Mich.

H. A. Eades-Bay City, Mich.

L. French-Benton Harbor, Mich.

W. Gass-Big Beaver, Mich.

G. A. Gordan-Brimsley, Mich.

L. D. Hixson-Durand, Mich.

R. H. Hodges-Brighton, Mich.

P. R. Hungerford-Concord, Mich.

N. H. Kassabian-Coopersville, Mich.

W. G. Kelly-Bay City, Mich.

J. Kremer-Grand Rapids, Mich.

E. S. L'Esperance—270 Woodward Ave., Detroit, Mich.

J. H. McCartney-Sodus, Mich.

Alex. McGregory-Fowlerville, Mich.

A. A. McKinnon-Port Huron, Mich.

A. W. Nicholson-Newberry, Mich.

G. V. Oill-Ludington, Mich.

A. J. Patterson-Grand Rapids, Mich.

A. J. Radzinski-Bay City, Mich.

W. Robinson-Ishpeming, Mich.

D. E. Squires-Vicksburg, Mich.

H. F. Thomas-Allegan, Mich.

J. C. Welsh-Grand Rapids, Mich.

S. A. Whinery-Grand Rapids, Mich.

CHANGE OF ADDRESS.

- W. W. Arscott-Rogers City, Mich.
- A. D. Baugham-Albion, Mich.
- Emma L. Clawson-Los Angeles, Cal.
- J. M. Elliott-Jonesville, Mich.
- D. R. Harris-293 Merrick Ave., Detroit, Mich.
- C. W. Isaminger-Alpena, Mich.
- D. Kerr-18 John R St., Detroit, Mich.
- J. C. McDonnell-Deckerville, Mich.
- R. J. McMeekin-804 Humboldt St., Detroit, Mich.
 - E. Orton-Pontiac, Mich.
 - Alex. Thompson-Adair, Mich.
 - G. H. Townsend-Tompkins, Mich.
 - H. S. Wagner-Toledo, Ohio.
 - C. W. Yarrington-Calumet, Mich.

DEAD.

H. A. Godale—East Tawas, Mich. Willis Parr—Metz, Mich.

EXPELLED.

F. W. Main-Jackson, Mich.

BOOKS RECEIVED.

- DISEASES OF THE EYE.—By Howard F. Hansell, M. D., and William M. Sweet, M. D. P. Blakiston's Son & Co. Philadelphia.
- DISEASES OF THE NOSE AND THROAT.—By Charles Huntoon Knight, M. D. P. Blakiston's Son & Co. Philadelphia.
- GENERAL PATHOLOGY.—By Sidney Martin, M. D. P. Blakiston's Son & Co. Philadelphia.
- MANUAL OF CLINICAL MICROSCOPY AND CHEM-ISTRY.—By Herman Lenhartz, M. D., of Hamburg. Translated by Henry T. Brooks, M. D., of New York. F. A. Davis Co. Philadelphia. 1904.
- THE SELF CURE OF CONSUMPTION.—By Chas. H. S. Davis, M. D. E. B. Treat & Co. New York. 1904.
- Transactions of the Vermont State Medical Society. 1903.

Inflammatory Affections of the Pancreas.

- A. Classification.
- 1. Catarrhal inflammations in which the inflammatory trouble is in the ducts.
 - a. Simple catarrh.
 - I. Acute.
 - II. Chronic.
 - b. Suppurative catarrh.
- 2. Parenchymatous inflammations in which the substance of the pancreas is involved:
- a. Acute.

- I. Haemorrhagic pancreatitis.
- (x) Ultra-acute, in which the haemorrhage precedes the inflammation, the bleeding being profuse both within and without the gland.
- (xx) Acute, in which the inflammation precedes the haemorrhage, which is less profuse and is distributed in patches through the gland.
 - II. Gangrenous pancreatitis.
- III. Suppurative pancreatitis (diffuse suppuration).
 - b. Subacute.

Abscess of the pancreas (not diffuse suppuration).

- c. Chronic.
- I. Interstitial pancreatitis.
- (x) Interlobular.
- (xx) Interacinar.
- II. Cirrhosis of pancreas.

B. Etiology:

- 1. Predisposing causes.
- a. Obstruction in the ducts, the result of
- I. Gall-stones.
- II. Duodenal catarrh.
- III. Pancreatic calculi.
- IV. Cancer of the papilla or of the head of pancreas.
- V. Ulcer of duodenum followed by cicatrical stenosis of the papilla.
 - VI. Ascarides and lumbrici.
 - b. Injury from a.
- I. Bruise as by manipulation in operating.
- II. Crush as by a blow in the epigastrium.
- III. Wound by a sharp instrument.
- c. Haemorrhage into the gland.
- d. General ailments as
- I. Typhoid fever.
- II. Influenza.
- III. Mumps.
- e. Certain anatomical peculiarities in the pancreas or its ducts.
- f. Atheroma or fatty degeneration of the blood vessels.
 - 2. Exciting causes:
 - a. Infection conveyed either
 - I. From the blood, as in syphilis or pyaemia.
- II. From the duodenum, as in gall-stone obstruction or gastro-intestinal catarrh.
- III. By extension inwards from adjoining organs, as in gastric ulcer or cancer eroding the pancreas.
 - b. Irritation, as in alcoholism (doubtful).

C. Miscellaneous.

- 1. Catarrhal inflammations.
- a. Simple catarrh-acute and chronic.

The history of the case and the digestive and metabolic signs, swelling of the pancreas (which

in some cases can be recognized by palpitation through abdominal wall, while in others only by manipulation through the opened abdomen) should help one to make a diagnosis.

b. Suppurative catarrh.

In all cases that the writer has seen, gall-stones have been the cause of the trouble. The disease tends towards death from septicaemia or pyaemia, or if the process be less acute or the vital powers more resistant, it may possibly end in a localized abscess. In this form the only thing to do is to operate.

Suppurative catarrhal pancreatitis is quite as serious as acute phlegmonous pancreatitis, and unless treated surgically must be almost necessarily fatal.

2. Parenchymatous inflammations:

a. Acute pancreatitis.

Fitz's rule is worth bearing in mind. Acute pancreatitis is to be suspected when a previously healthy person or a sufferer from occasional attacks of indigestion is suddenly seized with violent pain in the epigastrium, followed by vomiting and collapse and in the course of 24 hours by a circumscribed epigastric swelling, tympanitic or resistant with a slight rise of temperature.

Halstead lays stress on two symptoms, the excessive epigastric pain and the cyanosis of the face and of the abdominal wall.

The urinary test (see page 224) for pancreatic crystals should not be neglected, as a positive reaction has been obtained in all the cases of acute pancreatitis in which it has been tried.

b. Subacute pancreatitis.

As gall-stones are the usual cause of this form of pancreatitis, a history of intermittent attacks of spasms, at first without and later accompanied by jaundice, will be elicited and before the onset of the pancreatic trouble, the symptoms of infective cholangitis, in the shape of rigors with deepening of jaundice and with intermittent fever, will generally be found. The collapse in this form is not so marked as in the acute variety, and may be entirely absent. The onset as a rule is more gradual and the upper abdominal region does not become so rapidly distended as in acute pancreatitis. The prognosis is very much better in this form.

c. Chronic pancreatitis.

By chronic pancreatitis is understood an interstitial change of an inflammatory character leading to formation of fibrous tissue. It may be interlobular, in which case it exerts pressure on and causes atrophy of the true glandular substance of the pancreas and interferes with the digestive function or interacinar, in which case the fibrous tissue invades also the islands of Langerhans and leads, not only to an interference with the digestion but also with the metabolic functions of the gland and so glycosuria. Chronic interstitial pancreatitis may be primary, as in those cases recovering from acute or subacute forms of pancreatitis or from acute or chronic or suppurative catarrh, or it may be secondary, as in syphilis, alcoholism, and arterial degeneration and in zymotic diseases, such as typhoid fever and influenza.

D. Treatment.

1. Treatment of catarrhal inflammation of the pancreas and of chronic interstitial pancreatitis will be at first by general and medicinal means aiming at the cause, whether that be gall-stones, pancreatic calculi, duodenal catarrh, gastric ulcer, alcoholism or syphilis. If after a fair trial of medical treatment, not too long continued, the jaundice and loss of weight continue, and the signs of failure in pancreatic digestion and metabolism are manifesting themselves, the question of surgical treatment should be seriously considered, for the condition is one that if not relieved early will certainly lead to serious degeneration of the gland.

2. When the operation is undertaken before the process has advanced to well-marked pancreatitis, or to the interacinar form, the writer's experience has been that complete cure is effected in a very great proportion of cases.

3. If the interstitial process has become well marked, an arrest of the process is all that can be looked for.

4. Surgical treatment will vary according to the cause and the symptoms.

5. Where there is evidence of obstruction, whether in the pancreatic or common bile-ducts, the cause in the greater number of cases will prove to be concretions which should, if possible, be removed.

6. Beside the removal of the above, the bileducts should be drained either by cholecystotomy or cholecystenterostomy, which will nearly always afford relief by

I. Removing the infected bile and thus ridding the system of poison which tends to deteriorate the blood.

II. Removing the pressure of pent-up bile from the pancreas, thus relieving tension.

7. In acute pancreatitis the surgeon should not wait to operate until the collapse has passed off, as that may be dependent on septic absorption, which can only be relieved by operation. The operation aims to relieve tension, to evacuate septic material, to secure free drainage and to arrest

haemorrhage (if present), which leads to disintegration and necrosis of the pancreas.

8. The subacute form of pancreatitis is more amenable to treatment than the acute form. It has usually been attacked when an abscess has formed and is manifestly making its way to the surface. Yet there is no reason why in some cases, surgical treatment should not be adopted at an earlier stage.

9. Whether advanced chronic interstitial pancreatitis will be completely cured by operation, it is difficult to say, for in some of the severer cases a pancreatic reaction is found long after the operation and after all other symptoms have cleared up, but in several cases that have been tested years after the operation, the pancreatic reaction has entirely disappeared, thus apparently proving that the case is cured. It is probable that the operation arrests the process of disorganization, even if it cannot alter changes that have already occurred. Doubtless in some, the disease was a catarrhal inflammation of the pancreas, which was arrested either before interstitial inflammation had actually developed or before it had advanced too far. Probably in none of the cases had the interstitial change advanced so far as to become interacinar or to present the advanced stage of atrophy or cirrhosis, as in none of the cases was sugar present in the urine at the time of operation, though the metabolic functions of the pancreas were impaired, as shown by the presence of the pancreatic reaction. The digestive functions were affected, as shown by the condition of the faeces .- (The Lancet, March 26, 1904. A. W. Mayo Robson.)

Cysts, Injuries, Calculi and Neoplasms of Pancreas. Cysts of Pancreasis.—The most frequent cause of this is chronic interstitial pancreatitis, in which compression and constriction of the ducts result from a new formation of connective tissue with consequent stagnation of secretion. The pancreatic urinary reaction is present (page 224).

The symptoms depend on the disease leading to the cystic formation, and later to the pressure exercised by the tumor on the neighboring viscera.

In 6,000 post-mortem examinations by W. Hale White, at Guy's Hospital, during the years 1883-1894, pancreatic cysts were only found in four cases, and one of these was a hydatid cyst.

Injuries to Pancreas.—These are not necessarily fatal. Indications for operation depend on presence of either hemorrhage or inflammation.

Pancreatic Calculi.—Oser reports 70 recorded cases. To this number may be added seven more.

The stones are usually multiple. They contain lime in the form of carbonate, phosphate, or oxalate. They are therefore opaque to X-ray and so we have a means for diagnosing them.

The symptoms depend on the associated condition whether that be a cyst, abscess, chronic inflammation or other pathologic state. The pancreatic urinary reaction is present (page 224).

The stones should be removed surgically.

Neoplasms of Pancreas.—Carcinoma, sarcoma, adenoma, lymphoma and the granulomata (tubercle and gumma) are found.

Carcinoma is the most common neoplasm of the pancreas. The whole clinical course is run as a rule within twelve months. The surgical treatment is not very hopeful. It may be radical or palliative.

The primary sarcoma is rare though the secondary type is less uncommon. Very little so far has been done in a surgical way.—(The Lancet, April 2, 1904. A. W. MAYO ROBSON).

Effects of X-ray Upon Lower Animal Life and the Tube Best Suited to Their Destruction.

1. Technique:

a. Strongest rays are those directed from the centre of the anode plate in a line perpendicular to its face.

b. Best results are obtained if a sheet of lead be rolled into a cylinder and the rays directed through this.

c. Distance between the tube and specimen is of great importance. The closer the tube is the more potent are the rays. The writer has used 5 inches as the standard distance between the tube and specimen.

d Coil 18 inches was the one employed by Dunham.

2. It is probably the X-ray and not the cathode ray that causes destruction of epitheliomata.

3. Effect of X-ray on lower organisms:

a. Chilomonas.

b. Paramoecium aurelia.c. Paramoecium bursaria.

d. Cryptomonas. Killed by X-ray.

filled by X-ray e. Rotifera.

f. Arcella.

Unaffected by X-ray.

4. Conclusions:

a. There seems to be an analogy existing between these lower organisms and new malignant cells.

b. The best ray to destroy epitheliomatous and sarcomatous cells is the lower tube excited by a heavy current with much resistance.

c. Thus perhaps our first step toward cure of these malignant growths has been taken. (Johns Hopkins Bulletin, February, 1904. Kennon Dunham.)

PROGRAM

OF THE

39th Annual Meeting

OF THE

Michigan State Medical ... Society ...



At the St. Cecilia Building, Grand Rapids, Mich.

Wednesday, Thursday and Friday, May 25, 26 and 27, 1904.

THE COUNCIL

Chairman-LEARTUS CONNOR, Detroit, Secretary-W. H. HAUGHEY, Battle Creek.

Tuesday, May 24th, 7 o'clock P. M. Standard, at the Morton House.

Wednesday, May 25th, 4 o'clock P. M. Standard, at the St. Cecilia Building.

Thursday, May 26th, 4 o'clock P. M. Standard, at the St. Cecilia Building.

Friday, May 27th, 1.30 o'clock P. M. Standard, at the St. Cecilia Building.

Organization and Election of Officers.

HOUSE OF DELEGATES

ST. CECILIA BUILDING

President-WM. F. BREAKEY, Ann Arbor. Secretary - A. P. BIDDLE, Detroit.

By-LAWS-CHAPTER IV. Section 1. Each Component County Society shall be entitled to send to the House of Delegates each year one delegate for every 50 members, and one for each major fraction thereof; but each County Society holding a charter from this Society, which has made its annual report as provided in this Constitution and By-Laws, shall be entitled to one delegate.

FIRST DAY, WEDNESDAY, MAY 25th 9 A. M. STANDARD

- Call to order.
- 2. Roll Call.
- 3. Reading of Minutes of the last Annual Meeting.
- 4. Report of the Council

LEARTUS CONNOR, Detroit, Chairman.

- 5. Report of Committee on Legislation and Public Policy W. H. SAWYER, Hillsdale, Chairman.
- 6. Report of National Legislative Council, A. M. A. EMIL AMBERG, Detroit, Michigan Member.

7. Miscellaneous Business

a) Appointment of Committee on Nominations to nominate

1st, 2d, 3d and 4th Vice-Pres.

2 Representatives in House of Delegates, A. M. A., for 2 years.

To fix Place of Meeting for 1905.

Adjournment to General Meeting.

SECOND DAY, THURSDAY, MAY 26th 9 A. M. STANDARD

- I. Reading of Minutes of Previous Meeting
 A. P. BIDDLE, Detroit, Secretary.
- 2. Unfinished Business.
- 3. Report of Committee to petition the Legislature for an appropriation for the establishment of a properly equipped Sanitarium for the Treatment of the Early Stages of Tuberculosis

 B. D. HARISON, Sault Ste, Marie.
- 4. Report of Committee on Vital Statistics
 H. B. BAKER, Lansing, Chairman.
- 5. Miscellaneous Business.

 Adjournment to General Meeting.

THIRD DAY, FRIDAY, MAY 27th 9.30 A. M. STANDARD

- I. Reading of Minutes of Previous Meeting
 A. P. BIDDLE, Detroit, Secretary.
- 2. Unfinished Business.
- 3. Report of Committee on Nominations.
- 4. Miscellaneous Business.

 Adjournment to General Meeting.

GENERAL MEETING

ST. CECILIA BUILDING

President—WM. F. BREAKEY, Ann Arbor. Secretary—A. P. BIDDLE, Detroit.

FIRST DAY, WEDNESDAY, MAY 25th 10.30 A. M. STANDARD

- 1. Call to order.
- 2. Prayer REV. J. HERMAN RANDALL.
- 3. Address of Welcome

Hon. Edwin F. Sweet, Mayor,

Grand Rapids.

- 4. Report of Committee on Arrangements
 D. E. WELSH, Chairman.
- Report from the House of Delegates
 A. P. BIDDLE, Detroit, Secretary.

6. Address of the President

WM. F. BREAKEY, Ann Arbor,

"Obligations of the State to conserve Life and Health."

- 7. Miscellaneous Business
 - a) Nominations for President

Adjournment.

8 P. M. STANDARD

National Auxiliary Congressional and Legislative Committee of the American Medical Association of the Counties of Michigan.

I. Introductory Remarks

EMIL AMBERG, Detroit, Mich. Member National Legislative Council of the A. M. A.

2. Address

To be Announced.

- 3. The Work of the Auxiliaries in their respective Counties
 - J. B. GRISWOLD, Grand Rapids.
- 4. The National and State Legislatures and the Auxiliaries

 H. A. HAZE, Lansing.

Discussion General.

SECOND DAY, THURSDAY, MAY 26th 10.30 A. M. STANDARD

- I. Unfinished Business.
- 2. Report of Committee to secure data regarding the prevalence of Venereal Diseases in Michigan

A. E. CARRIER, Detroit, Chairman.

3. Oration on Surgery

H. E. RANDALL, Lapeer.

"Abdominal Pain."

4. Oration on General Medicine

DAVID INGLIS, Detroit.

"A Message from the Clinician to the Laboratory Men."

5. Miscellaneous Business.

Adjournment.

THIRD DAY, FRIDAY, MAY 27th

10.30 A. M. STANDARD

- 1. Unfinished Business.
- Report from the House of Delegates
 A. P. BIDDLE, Detroit, Secretary.
- 3. Oration on Obstetrics and Gynecology
 A. N. COLLINS, Detroit.

"Have we yet learned how potent for cure are the Natural Processes?"

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4. Miscellaneous Business

At 12 o'clock Standard the result of the ballot for President will be announced

Introduction of the President Elect Adjourment.

SECTION ON GENERAL MEDICINE

Chairman—R. H. SPENCER, Grand Rapids. Secretary—H. B. BRITTON, Ypsilanti.

FIRST DAY, WEDNESDAY, MAY 25th 1.30 P. M. STANDARD

1. The Prevention of Drug Habits

W. J. WILSON, JR., Detroit.

Responsibility of the pharmacist and physician for their formation. The duty of the pharmacist and physician. The necessity of a state anti-narcotic law. The Beal model anti-narcotic law. The duty of the State Medical Society.

2. Gastroptosis; Special Methods of Treatment

W. E. NEWARK, Charlotte.

Gastroptosis is dilatation with prolapse of the stomach. Etiology: Errors of diet, half chewing of food, rapid eating, drinking of large quantities of fluids, improper methods of dress, lack of muscular development.

Diagnosis: Vomiting of large quantities of food after meals, more than the amount eaten at one meal, which is sour, a result of fermentation; large abdomen, which shows outlines of the stomach. The use of the gastrodiaphane in the stomach.

Treatment: Correct errors in diet. Give test meal. Test the contents of stomach. Give dry diet, avoiding foods which are slow to digest; chew food thoroughly. Use lavage daily as long as stomach is sore and the food is fermented. Use hot fomentations to remove the soreness, massage the stomach daily to replace the organ and strengthen the muscles'; also use electricity for the same purpose. Keep the bowels regular by enemas, drink plenty of sterilized water when stomach is empty.

3. Diagnosis of Diseases of Children

W. A. FERGUSON, Sturgis.

- I. Why do we study Diseases of Children as a Separate Art and Science?
- 2. What are the Peculiarities of the Disgestive Organs?
- 3. What are the Peculiarities of the Nervous System?
- 4. Is there any language in the Cry—the Face—the Positions?
- The Importance of Diet and what it means to the Child.
- 6. The Peculiarities of the Brain—the Liver—and the Generative Organs.

4. What is the General Paralysis of the Insane? HIRAM A. WRIGHT, Detroit.

It is generally assumed by alienists and neurologists that in this condition the insanity manifest is dependent upon the cortical lesions observed. Several reasons are advanced in the essay to show the impropriety of this assumption.

The Test Breakfast in Diseases of the Stomach, with Report of Cases

CHARLES D. AARON, Detroit.

Definition of test-breakfast. Its value in obscure cases. The difference between achlorhydria, hypochlorhydria and hyperchlorhydria. A report of several cases, each case having different symptoms and all making a recovery by regulating the treatment according to the analysis of the stomach contents after a test breakfast.

6. Diagnostic Signs of Our Common Intestinal Parasites F. A. MAPLES, Battle Creek.

Cause and Rational Treatment of Pneumonia H. J. CHADWICK, Grand Rapids,

That Pneumonia is the result of obstruction to the circulation of blood in the capillaries of the tissues between the air cells and bronchi. That this obstruction is caused by the contracting effects of a cold atmosphere applied to the surface of the thorax and breathed into the lungs at times when the mind has been engaged in deep thought or is at rest in sleep, after the thorax has been excessively warm. That other portions of the body exposed in a similar way, will be congested and inflamed in a similar manner. That cold applied to the chest in the way to be described is the sole cause, barring accidents, of pneumonia, and not the pneumo-coccus. The oxygen supply to the blood being largely diminished on account of the obstructed blood vessels of the lungs, the activity of the skin to aid in furnishing this deficiency must be encouraged in every way possible. That the alimentary canal must be thoroughly cleaned and kept so. As the heat-producing oxygen is largely diminished, the body must be kept at its normal temperature by artificial means, with moist warm air. That poultices and hot water applications as usually applied are a damage. That applications of glycerine and clay is the wisest dressing for the · chest yet discovered.

SECOND DAY, THURSDAY, MAY 26th 1.30 P. M. STANDARD

1. General Tic, with Report of Case

C. C. WALLIN, Grand Rapids. (Presentation of a Case of Rickets).

2. Intertracheal Injections

WILLIS S. ANDERSON, Detroit.

3. Hysteria, Certain Manifestations

GUY L. CONNOR, Detroit.

4. A Case of Persistent Vomiting

COLLINS H. JOHNSTON, Grand Rapids.

. Vascular Disease as a Factor in the Etiology of Epilepsy

WM. J. HERDMAN, Ann Arbor.

Cases showing the association of epilepsy with valvular disease of the heart, disease of the cerebral vessels and vaso-motor disorders. Discussion of the relation and significance of the same in causing the epileptic seizures.

 A Pharmacological Study of Ethyl Salicylate E. M. HOUGHTON, Detroit.

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7. Treatment of Chronic Otitis Media

J. G. HUIZINGA, Grand Rapids.

- 1. General considerations, asepsis, antisepsis, etc.
- Anatomy of the parts with special reference to the relation of the middle ear to the Eustachian tube.
- The position and direction of this tube being such as to tend to retain such secretions as it may contain, should there exist a more or less complete occlusion.
- 4. The impossibility of obtaining thorough asepsis by the ordinary methods of syringing the ear as the douching fluids rarely reach beyond the drum membrane.
- The necessity of thoroughly dilating the tube as the first step in the treatment. Methods: catheter, Politzerization and Valsalva's.
- The necessity of obtaining thorough asepsis of the entire auditory tract from the external ear to the internal end of the Eustachian tube.
- 7. Technique in detail. Home treatment.
- The necessity of obtaining as nearly normal a condition of the upper air tract as may be possible.
- Cleansing solutions used. Preference for Iodine solutions.
- 10. Internal treatment according to indications.

3. Prophylaxis and Treatment of the Common Communicable Diseases of the Skin

H. R. VARNEY, Detroit,

Should children who are afflicted with communicable skin affections, such as Ring-worm, Impetigo Contagiosa, Scabies, and Pediculosis be allowed to attend school? Consideration of medical inspection of schools; disinfection of money; public library books; street-cars; individual communion cups as prophylatic measures, etc.

Brief synopsis of personal management, and treatment of the diseases mentioned.

4. Proctitis and Sygmoiditis

WM. L. DICKINSON, Saginaw.

- Review of significant anatomical features of sygmoid and rectum.
- 2. Frequency and causes of disease.
- 3. Varieties-Atrophic and hypertrophic.
- Symptoms of each variety; pathology and treatment.

5. The Value of the Tuberculin Test

I. H. NEFF, Pontiac.

- 6. A Case of Colitis with Treatment
 - F. HOLMES BROWN, Newaygo.
- Laryngeal Complication of Typhoid Fever
 W. L. WILSON, St. Joseph.

THIRD DAY, FRIDAY, MAY 27th

1.30 P. M. STANDARD

Election of Chairman and Orator of Section.

1. Pneumonia in Children

LOREN CURTIS, Paw Paw.

- 1. The frequency of Pneumonia in children.
- The lungs are attacked more often than any other organ during childhood.
- Nearly all of the pneumonias of childhood have the pneumococcus present and nearly all are preceded by a bronchitis.
- Both a lobar catarrhal pneumonia and a primary acute bronchopneumonia are found in children.
- 5. The cause of pneumonia.
- 6. Signs and symptoms of pneumonia.
- 7. The importance of the pneumonic grunt.
- 8. Is it pathognomonic of pneumonia?
- Quotations from Seibert, Christopher, Holt, and Henoch.
- 10. Masked cases of pneumonia.
- The importance of the pneumonic grunt in these cases.

12. Treatment

- 1. To make the child comfortable.
- External applications to the chest, their use and abuse.
- 3. The value of the hot mustard bath.
- 4. Expectorants.
- 5. Liquor Ammonii Anisati.
- 6. Fever.
- 7. Oxygen.
- 8. Inhalations.

The Necessity for Periodical Examinations in the Apparently Healthy

ALEXANDER MCKENZIE CAMPBELL, Grand Rapids.

SECTION ON SURGERY, OPHTHALMOLOGY AND OTOLOGY

Chairman—D. EMMETT WELSH, Grand Rapids. Secretary—John W. Moore, Atlantic Mine.

FIRST DAY, WEDNESDAY, MAY 25th 1.30 P. M. STANDARD

- Removal of Second and Third Division of the Fifth Pair of Nerves after Emergence from the Skull, showing as good results as from removal of the Casserian Ganglion. This operation is much less difficult to perform, not dangerous and with slight deformity of the face
 - WILLIAM FULLER, Grand Rapids.
- 2. Treatment of Intestinal Fistulas by the Elastic Ligature
 - THEODORE A. MCGRAW, Detroit.
- Myelitis Complicating Cancer of the Breast. Report of a case

F. B. WALKER, Detroit.

This subject suggested by the unusual course and unfortunate result of surgical treatment for cancer of breast. History of case before, during and after operation. Myelitis from this cause rare. Usual causes, course and treatment. The need for more exact data for earlier diagnoses of malignant growths.

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4. The Treatment of Compound Fractures

A. I. LAWBAUGH, Calumet.

In the treatment of compound fractures it must be borne in mind that we are dealing with a lacerated and infected wound of delicate tissues

Rigid asepsis and immobilization. - Thorough cleansing of the whole wound area, by scrubbing with soap, and irrigation with mild antiseptic fluids.

All bleeding points must be controlled.—All divided muscles, periosteum, tendons and nerves must be united by suture.

Efficient drainage must be provided in the most dependent part. The wound then closed and the parts immobilized by some form of fixed dressing which gives comfort to the patient.

5. Combined Use of Plaster of Paris and Elastic Traction in Deformities of the Feet

C. B. NANCREDE, Ann Arbor.

The advantages of forcible correction and fixation with plaster of Paris in club feet is conceded by all, and also that this method can be employed before permanent apparatus is either applicable or desirable.

Elastic traction efficiently applied can overcome deformities which cannot otherwise be so quickly, painlessly and cheaply effected-hence an effective combination of both plans is desirable. Much less cutting is requisite than in the"Phelps" operation and osteotomy can often be avoided by this combination of methods, the elastic traction completing the reposition while the wound is healing. This method is always available, no skilled mechanic being neces-

6. Operations Upon the Prostate

E. B. SMITH, Detroit.

7. Operation for the Removal of Triangular Depressed Fracture of Left Parietal Bone, Upper Middle Border (Recovery)

W. EARLE CHAPMAN, Cheboygan.

History of patient. 1. Age.

- 2. Family history.
- 3. Personal history.
 - 1. Development.
 - 2. Education.
 - 3. Mental condition.
- Injury. 1. Treatment medicinal.
 - 2. Operation.
- 3. Subsequent treatment. Result. I. Mental.
 - 2. Physical.
 - 3. Psychic.

SECOND DAY, THURSDAY, MAY 26th 1.30 P. M. STANDARD

Differential Diagnosis of Conditions Simulating Appendicitis

L. J. HIRSCHMAN, Detroit.

A discussion of the symptoms of those diseases which are not infrequently confused with appendicitis, and incorrectly diagnosed as such. symptoms common to various abdominal diseased conditions, with especial attention to points of differentiation, are emphasized. Method of abdominal examination personally pursued.

2. Report of a Case of Cellulitis of Arm and Forearm I. D. LOREE, Ann Arbor.

Cause, duration and treatment. Pathology-Condition corresponding to Phlegmonous Erysipelas of older texts. Palliative and radical treatment both early and modern. Necessity of early intervention.

Diabetic Gangrene

STUART E. GALBRAITH, Pontiac.

Etiology, symptoms and treatment. Consideration of indications for surgical treatment. When should operation be performed? Prognosis, sequelae of operations.

4. Cancer of the Rectum. Report of cases

J. A. MACMILLAN, Detroit.

Comparative ease and tremendous importance of early diagnosis. Requisites of early diagnosis,

- 1. Frequent rectal examinations.
- 2. Thorough examinations.
- 3. Indications for thorough examination of the rectum.
- 4. Methods of examinations
 - 1. Digital examination.
 - 2. Anascope, Proctoscope. Fenestrated anascope.
 - 3. Microscopic examination of portions of detached tissue.

5. Treatment-Objects

- 1. Relief of suffering.
- 2. Prolongation of life.
- (1) A large percentage of these patients should have the benefit of a radical operation and in many cases this operation is not necessarily formidable.
- (2) Palliative measures
 - 1. Colostomy.
 - 2. Currettage.
 - 3. Cutting sphincture.
 - 4 Opium, etc.
- 6. Report of cases.

5. Some Diseases of the Rectum, and the Treat-

C. G. DARLING, Ann Arbor.

6. Primary Carcinoma of the Ureter. Report of a

WM. F. METCALF, Detroit.

Etiology, Pathology, Diagnosis, Prophylaxis, report of the case. Other cases in the literature.

7. Chronic Suppurative Otitis Media, its Importance and Treatment

DON M. CAMPBELL, Detroit.

An important disease from the standpoint of expectancy of life as well as interference with the special sense of hearing and the comfort and usefulness of the individual. Treatment-Medicinal-Surgical-Cases-Conclusions.

8. History of the Mastoid and Radical Operation on the Middle Ear, with Demonstration of **Anatomical Specimens**

EMIL AMBERG, Detroit.

Surgical interference in the middle ear suppuration may be dated from the year 1782. Since about four decades surgical interference was re-established and based on a more thorough scientific foundation. Schwartz of Halle is the most prominent pioneer. Then the so called radical operation was added to the Mastoid operation. Difference of the two methods. When is a Mastoid operation indicated? Why is it not only more safe but frequently absolutely necessary to open the Mastoid early? The operation is more simple, the dangers are less great, recovery quicker. What can the general practitioner do from the standpoint of prophylaxis and from the standpoint of treatment? Anatomical specimens illustrating the remarks.

THIRD DAY, FRIDAY, MAY 27th 1.30 P. M. STANDARD

Election of Chairman and Orator of Section.

 The Advantages of Early Operation in Hip Joint Disease

E. C. TAYLOR, Jackson.

Congenital Dislocation of Hip. Reduction by Lorenz Method

ANGUS MCLEAN, Detroit.

Etiology, presentation of symptoms, most suitable period of reduction. Bloodless method of treatment. Skiagraphs showing position of head of Femur before and after treatment.

3. The Closure of Wounds

H. W. YATES, Detroit.

The skin can not be made aseptic and therefore needles carried through it distribute bacteria in their path. All wounds should be closed with as little injury to them as possible; the edges should be coapted but not drawn taut. In a majority of the ordinary accidental wounds and a fairly representative number of operation wounds, suitable closure can be made by the use of adhesive plaster strips. The fewer stitches through the skin the less infection do we have.

4. Interpretation of Radiographs

PRESTON M. HICKEY, Detroit.

Subject to be considered from two standpoints.

1. The excellence of the radiograph.

2. The experience of the interpreter.

Definition of Radiograph: Physical laws involved in its production. Essentials of a technically good radiograph. Methods of examination of negatives. Training and experience of the one who interprets radiographs. Importance of understanding radiographic anatomy. Errors may also arise from preconceived ideas. Utility of stereoscopic images.

Amblyopia from Methyl Alcohol Used Cosmetically

DANIEL CONBOY, Bad Axe.

Literature on Methyl alcohol amblyopia is recent. Dangers in use of patent medicines and similar mixtures containing inferior and cheap alcohols. Previous cases of wood alcohol, blindness due to drinking or inhaling same in confined space. Present case due to its use to cut the "oiliness" of face and remove blemishes. Vertigo and almost total blindness occurred. Immediate diagnosis of toxic origin made from symptoms. Removal of cause and treatment leads to recovery in six weeks.

6. Adventurers in Surgery

C. T. NEWKIRK, Bay City.

7. Tracheotomy

J. A. HEASLEY, Grand Rapids.

Foreign bodies are drawn into the trachea by suction. Different location of foreign bodies in the trachea. The different kinds of foreign bodies in the trachea. Method of making diagnosis of foreign body in the trachea and bronchi.

Characteristic symptoms by which we are able to make a differential diagnosis between foreign bodies in the trachea and oesophagus. How to know the exact location of a foreign body. Method of operating for foreign body with a special reference to the extremely low operation and lodgement in the bronchi.

- 8. Postoperative Exophthalmic Goitre. Report of a case
 - S. EDWARD SANDERSON, Detroit.

SECTION ON OBSTETRICS AND GYNECOLOGY

Chairman—L. S. GRISWOLD, Big Rapids. Secretary—FLORENCE HUSON, Detroit.

FIRST DAY, WEDNESDAY, MAY 25th 1.30 P. M. STANDARD

 The Operative Treatment of Cystocele and Procidentia Uteri

JOHN N. BELL, Detroit.

The cause of failure in superficial denudation and transverse, antero-posterior, or purse-string approximation of the denuded areas. The sound anatomical and surgical principles underlying the successful operative repair of cystocele and procidentia uters. A brief description of the operation and report of

- A Case of Malformation of the Internal Genitals with the Reproductive Glands in the Labia Majora Charles I. Patton, Ann Arbor.
- 3. A Report of a Case of Epithelioma of the Vulva A. C. REED, Ann Arbor.
- 4. Dysmenorrhœa

JEANNE E. SOLIS, Ann Arbor.

Clinical history of a number of cases to illustrate the subject. Etiological and pathological consideration of same.

Treatment—General and local and especially that by means of electricity.

5. A Plea for Early Trachelorrhaphy

T. S. SANDS, Battle Creek.

When we realize that the great majority of chronic ailments of women are the result of neglected lacerations of the cervix and 75 per cent. of malignant growths of uterus are the result of same cause, I feel justified in calling your attention to this common, yet all important condition. By the term early trachelorrhaphy I do not mean immediate repair of cervix, which I think is unwise and dangerous unless demanded to prevent serious hemorrhage.

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- 6. A Report of Five Cases of Sarcoma of the Uterus RALPH L. MORSE, Ann Arbor.
- Chorio-Epithelioma Malignum. Report of case W. F. METCALF, Detroit.

Diagnosis—Gross and microscopical appearances, General symptoms: Anæmia, etc. Differential Hydatidiform mole. Retained placental remnants. Fibroids. Polypi. Cancer.

Treatment — Preliminary to certain diagnosis. Hysterectomy, subsequent observations. Metastasis-Constitutional.

SECOND DAY, THURSDAY, MAY 26th 1.30 P. M. STANDARD

 Pregnancy; Hygiene of Pregnancy; Mechanism and Management of Labor

FRANK H. WEAVER, Charlotte.

 Injuries of the Parturient Canal Due to Childbirth, their Causation, Diagnosis and Treatment

JAMES E. DAVIS, Detroit.

Introduction—The facts relative to the pathological findings suggest unmistakably a preventive etiology.

Argument—Enumeration of avoidable and unavoid able lesions, the prevention of the former and the care of the latter. The obstetrician should be prepared to make necessary repairs during the early puerperium. The preparation for such repair work outlined. Objections considered.

Conclusions — The obstetrician has limited his science and art. The reputation of the obstetrician and the rights of the patient demand the recognition and complete immediate repair of lesions resulting to the parturient canal at the early part of the puerperium.

 The Use of Rubber Gloves as a Prophylaxis in Obstetrics.

F. J. W. MAGUIRE, Detroit.

The paper will contain bacterialogical research work made from cultures taken from writer's hands, also the reports of over one hundred cases of instrumental delivery in which the patients were protected by the use of rubber gloves.

4. Ectopic Pregnancy

MORTIMER WILLSON, Port Huron.

By ectopic pregnancy we understand pregnancy in which the ovum is anchored and develops to a greater or less degree at some place outside of the uterine cavity. This place may be in the tube within the uterine wall, the tube proper, the ovary, or the peritoneal cavity.

. Etiology-Stenosis of tube sacculation or rugosity of its lining, adhesions causing rending of the tube with stenosis, adhesions of the fimbriae preventing normal action.

Course of development of fœtus. Varying according to nutriment and environment.

Symptoms - Variation in menses, breasts, shedding uterine casts.

Diagnosis—To be made from symptoms and physical examination:

Treatment—The ideal way is to operate before rupture occurs. When rupture has occurred operate as soon as you can get some reaction from the shock and loss of blood.

Brief narration of six cases.

4. Continued.—Report of a Case of Extra-Uterine
Pregnancy

GEORGE C. HAFFORD, Albion.

These cases not so much mentioned in text-books as formerly. Cases more rare than formerly. Reasons for. The great mystery of former times. Probably they will grow less in future.

5. Bright's Disease and Pregnancy.

W. H. SAWYER, Hillsdale.

 Continued.—Cause and Treatment of Puerperal Eclampsia

A. N. COLLINS, Detroit.

Importance of subject.—Lack of appreciation of gravity of the condition. Causes unproven. Speculation upon causes. Danger signals. Prompt interference demanded if condition not permanently improved by treatment. Necessity of terminating pregnancy. Methods of treatment mechanical and medicinal. Great value of veratrum viridi. Conclusions.

6. Eclampsia and Vaginal Cesarean Section

J. H. CARSTENS, Detroit.

Mild attacks of eclampsia can be controlled by veratrum and other remedies until labor can be induced by slow methods.

Severe attacks occurring one after the other and threatening the life of the patient can be saved only by prompt delivery. This can best be done by vaginal cesarean section.

7. Clinical Cases.

J. G. Lynds, Ann Arbor.

- Fibroid tumor in a patient with absence of vagina and all internal organs except one rudimentary ovary.
- Pseudohermaphrodite. Operation for formation of vagina, results:
- Vaginismus, (A) Vaginismus with thick firm hymen. Conception without intromission. Labor. Cure. (B) Vaginismus. Vulva normal. Conception without intromission, labor at term. Vaginismus unchanged.

THIRD DAY, FRIDAY, MAY 27th

1.30 P. M. STANDARD

Election of Chairman and Orator of Section.

 Hysteria; Its Relation to Obstetrics and Gynecology GEO. F. BUTLER, Alma Sanitarium.

There should be a distinction between hysteria and hysteroid states. The first is a psychic instability affecting the central nervous system, removing the checks on the local innervation of structures and organs whereby they acquire undue action. This increased activity is followed by local exhaustion and perchance secondary local morbid states which persist after the hysteric explosion has disappeared

These conditions affect the organs of nutrition, oxidation, and elimination as well as the genitalia. Disorders of these organs through emotional exaltation and secondary depression often produce nerve tire and auto-intoxication with hysterical results.

Removal of the genital morbid state removes a predisposing and continuing etiologic factor, but does not remove the more important secondary etiologic factors—nerve tire and auto-intoxication which it has set into action, hence gynecology will not suffice.

Pregnancy being a new factor introduced into an organism which disturbs the physiologic balance hitherto existing is, according to Virchow's definition of pathology, a pathologic, but nosologic state considered from the standpoint of the mother. As it involves early undue assimilation and later under elimination it sets up nerve tire and auto-intoxication, hence its frequent hysteroid aspect.

Grafted on a degenerative or neurosal enfeebled organism from involution, traumatism, essential fevers, auto-intoxication, etc., it often upsets the feeble nervous balance and produces the hysteric constitution.

2. Physiologic Therapeutics in Gynecology

J. H. KELLOGG, Battle Creek.

There is no branch of medicine in which the natural or medicinal agents, which are included under the general title "Physiologic Therapeutics," render greater service than in the special department of gynecology. Hydriatic measures afford the most effective means for combatting acute and chronic pelvic inflammations, preparing patients for important surgical procedures, and bringing them to successful recovery after grave operations.

Massage, manual and mechanical Swedish movements, and various special forms of gymnastics are essential factors in the curative treatment of chronic pelvic congestions and displacements of pelvic viscera. Electrotherapy renders essential aid in the treatment of various circulatory disturbances, and painful disorders of the pelvic region. Phototherapy and thermotheraphy are also capable of rendering valuable service in this class of disorders, accomplishing certain results which can not be so well secured in any other way. This paper endeavors to present in some detail the technique of the various methods by which the physiologic agents mentioned, and others, may be utilized in the various disorders the treatment of which is commonly referred to Gynecologists.

3. Infection of the Biliary Tract

H. W. LONGYEAR, Detroit.

Three vulnerable points in the peritoneal cavity through which pathogenic germs may enter, viz.: female genital tract, appendix vermiformis and biliary tract. Infection of biliary tract may be with or without gall stones. Severe symptoms occur as result of occlusion of ducts, either by inflammation or by mechanical means, when invaded by pathogenic germs. Mild symptoms, resembling malaria, occur without occlusion. Cause of fever in such cases often obscure.

Typhoid and colon bacillus most common form. Medication of use to allay cholangitis and to promote drainage. Incision and drainage usually necessary to radical cure. Complete disinfection of tract not practicable. Long continued drainage occasionally necessary.

An effective bile-fistula pad for collecting the bile and preventing the soiling of clothing and dressings. 4. The Diagnosis and Treatment of Intraligamentous Ovarian Cysts

ROLLAND L. PARMETER, Ann Arbor.

- Renal Hematuria of Unexplained Origin. Report of a case with Cessation after Nephrotomy
 BENJAMIN R. SCHENCK, Detroit.
- 6. Appendicitis. Personal Conclusions based upon Two Hundred Operative Cases

Wм. Візнор, Вау Сіту.

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 $Symptoms - \textbf{Persistent localized tenderness the} \ only constant \ symptom.$

Diagnosis—Persistent localized tenderness the only symptom necessary for diagnosis.

Treatment—Persistent localized tenderness always an indication for immediate removal of the appendix vermiformis,

 The Relation of the Appendix to Pelvic Disease, based upon a Clinical and Microscopical Study of Two Hundred Cases

REUBEN PETERSON, Ann Arbor.

OFFICERS OF THE SOCIETY

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DELEGATES TO ANNUAL MEETING

Michigan State Medical Society, at Grand Rapids, May 25, 26 and 27, 1904

Delegate	Alternate
AlleganW. H. Bills, Allegan	
AlpenaJ. D. DUNLAP, Alpena	S. T. BELL. Alpena
BarryJ. M. Elliott, Jonesville	J. W. RIGTERINK, Freeport
BayJohn McLurg, Bay City	
Benzie E. J. C. Ellis, Benzonia	
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Cass E. A. PLANCK, Union Charlevoix C. A. Sweet, East Jordan	
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Emmet GEO, W. NIHART, Petoskey.	
GeneseeJ. C. WILLSON, Flint	
Gogebic J. R. Moore, Ironwood. Grand Traverse A. Rosenthal Thompson, Traverse City	G. 14. LOOPE, Bessemer
Gratiot	
Hillsdale	
Houghton	
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Ingham	H. A. HAZE, Lansing
Ionia G. A. STANTON, Belding	E. F. BECKWITH, Ionia
Iosco	
Isabella	
Jackson	
Kalamazoo	
"	
Lapeer	
Lenawee C. KIRKPATRICK, Adrian	D. Todd, Adrian
Livingston A. W. COOPER, Fowlerville	J. E. EGBERT, Howell
MacombJas. Yates, Roseville	
Manistee H. D. Robinson, Manistee	
Marquette A. W. HORNBOGEN, Marquette	
Mason	
Menominee	
Midland F. A. Towsley, Midland	
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Monroe P. S. Root, Monroe	
Montcalm I., S. Crotser, Edmore	
NewaygoN. DE HAAS, Fremont	
Oakland ROBERT JOHNSTON, Milford	
O. M. C. O. R. O	
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Washtenaw	
Wayne F. L. Shurly, Detroit	
	F. B. TIBBALS, Detroit
",	
" H. W. LONGYEAR, Detroit	MAX BALLIN, Detroit
" K. Gunsolus, Detroit	
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Wexford E. B. Babcock, Kalkaska	S. C. MOORE, Cadillac

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DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

H. O. WALKER, Detroit.
V. C. VAUGHAN, Ann Arbor.
Two to be elected for two years.

MICHIGAN MEMBER OF THE NATIONAL, LEGISLA-TIVE COUNCIL, OF THE AMERICAN MEDICAL, ASSOCIATION

EMIL AMBERG, Detroit.

PERMANENT COMMITTEES

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E. BINGHAM, Grand Rapids.
R. H. SPENCER, Grand Rapids.
W. H. CATLIN, Grand Rapids.
F. J. LEE, Grand Rapids.

ON LEGISLATION AND PUBLIC POLICY

W. H. SAWYER, Hillsdale, *Chairman*. JAMES W. INCHES, Saint Clair. D. B. CORNELL, Saginaw.

ON VITAL STATISTICS

H. B. BAKER, Lansing, Chairman. A, H. ROCKWELL, Kalamazoo. G. G. BARNETT, Ishpeming.

SCIENTIFIC EXHIBIT COMMITTEE FOR THE MEETING OF 1904

THADDEUS WALKER, Detroit, Chairman.
A. M. CAMPBELL, Grand Rapids.
A. W. CRANE, Kalamazoo.
P. M. HICKEY, Detroit.

A. S. WARTHIN, Ann Arbor.

SPECIAL COMMITTEES

TO SECURE DATA REGARDING PREVALENCE OF VENEREAL DISEASES IN MICHIGAN

A. F. CARRIER, Detroit, Chairman. RALPH H. SPENCER, Grand Rapids. JAS. F. BREAKEY, Ann Arbor.

TO PETITION THE LEGISLATURE FOR AN APPROPRIATION FOR THE ESTABLISHMENT OF A PROPERLY EQUIPPED SANITARIUM FOR THE TREATMENT OF THE EARLY STAGES OF TUBERCULOSIS

B. D. Harison, Sault Ste. Marie. H. J. Hartz, Detroit. J. B. Whinery, Grand Rapids. BENJAMIN F. HORNER, Lake Odessa. C. N. Sowers, Benton Harbor.

MISCELLANEOUS

All meetings are held on Central Standard Time at the St. Cecilia Building, cor. Fulton and Barclay Streets.

The Scientific Exhibit will be found in the St. Cecilia Building.

The Exhibits will be found in the Ball Room, 2d Floor, St. Cecilia Building.

All meetings will be called to order promptly on time.

Each member in attendance shall enter his name in the Registration Book, indicating the County Society of which he is a member. Please do not fail to register upon arrival at the St. Cecilia Building.

Only members who are registered are entitled to vote.

The ballot box for the election of *President* will be found at the St. Cecilia Building at the place of the General Meetings. The polls close at 12 o'clock noon, Standard, May 27th.

BY-LAWS-CHAPTER III, SECTION 5.

All papers read before the Society shall be its property. Each paper read shall be deposited immediately with the Secretary, but the author may also publish the same in any reputable journal not published in this State, provided the printed article bears the statement that it was "read before the Michigan State Medical Society."

ENTERTAINMENT

The Profession of Grand Rapids will make ample provision for the comfort and entertainment of the visiting members.

May 24th, Evening.—Informal reception by Committee on Arrangements at the *Morton House*.

May 25th, 8 P. M. Standard, St. Cecilia Building.
—Address, to be announced.

May 26th, 7.30 P. M. Standard, St. Cecilia Building.—"Appendicitis." Dr. A. J. Ochsner, Chicago. Discussion opened by Drs. J. H. Carstens, Detroit; S. C. Graves, Grand Rapids; O. P. Barber, Saginaw; W. T. Dodge, Big Rapids; and Angus McLean, Detroit.

9 P. M.—Reception to the members and ladies by the Kent County Medical Society at the Pantlind.

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HOTELS

Morton House		lquarters)\$ nerican Plan)	\$2.50 to	\$3.50
Fantlind Hotel	(Eure	opean Plan)	1.50 to	3.50
Livingston (A	merica	ın)	2.50 to	3.50
Cody	"		2.50 to	3.50
Eagle Hotel	"		2.00 to	3.00

REDUCED RAILROAD RATES.

One and one-third fare for the round trip.

Excursion fares from all points in Michigan, except from points on the Grand Rapids Division of the Michigan Central Railroad, where upon validated certificates the rate of fare is 1½ cents per mile for the return trip, have been granted for persons attending the meeting of the Michigan State Medical Society to be held at Grand Rapids, May 25th, 26th and 27th, upon the following conditions:

First. That one hundred or more persons, holding properly executed certificates of standard form, attend the meeting.

Second. Each person desiring the excursion rate must purchase a first-class ticket to Grand Rapids for which he or she will pay the regular tariff fare

of not less than 75 cents, and upon request, the ticket agent will issue a printed certificate of purchase.

Third. If through tickets cannot be procured at the starting point, parties will purchase to the nearest point where such through ticket can be obtained, and there purchase through to place of meeting, requesting a Certificate from the Ticket Agent at the point where each purchase is made.

Fourth. Tickets for the return journey will be sold by the Ticket Agent at the place of meeting at one-third the first-class limited fare only to those holding Certificates signed by the Ticket Agent at point where through ticket to place of meeting was purchased, countersigned by signature written in Ink by the Assistant Secretary of the Society, certifying that the holder has been regular in attendance at the meeting, and signed and stamped by the Special Agent of the Michigan Passenger Association.

Fifth. Tickets for return journey will be furnished only on Certificates procured not more than three days before the meeting assembles; no stopover privileges being allowed on tickets sold at less than regular unlimited fares. Certificates will not be honored unless presented within three days after the adjournment of the meeting.

"No refund of fare can be expected because of failure of the parties to obtain Certificates."

A charge of 25 cents will be made at the meeting by Special Agent for each certificate issued by him.



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Book Motices.

Under the charge of RAY CONNOR.

Simon's Clinical Diagnosis. A Manual of Diagnosis by Microscopic and Chemical Methods. For Students and Practitioners. By Charles E. Simon, M. D. New (fifth) edition, thoroughly revised and much enlarged. Octavo, 695 pages, 150 engravings, 22 colored plates. Cloth; \$4.00 net. Lea Brothers & Co., Philadelphia and New York, 1904.

Laboratory methods, as applied to practical medicine, are as yet in their infancy. Great things have already been accomplished and great strides made to transform medicine from an empiracism to an exact science. It is hard for those who left their preparatory studies behind thirty years ago to realize the revolution which has come over the teaching of the medical art. Then it was largely the personal instruction of the man who had gone through the mill; now there are a hundred and one methods, all of which must be learned and used as occasion offers. The realization of this by medical men is shown by the fact that this little book has run through four editions in less than twice as many years. It has grown from a modest little volume to a handsome and comparatively large one.

In this new edition, the section on the blood shows where the line of greatest development is. In order to cover the advances made in this one branch, sixty new pages have been added, as well as several colored plates. The principles, methods and applications of kryoscopy as applied, not only to the blood, but also to the urine, have been briefly and concisely outlined. The very recent work on trypanosomiasis is given a short mention and trypanosoma gambiense figured. The sections on the bacteriology and parasitology of the blood have been enlarged with articles on paratyphoid fever, gonococcus septicaemia, bubonic plague and spotted fever.

As befits the importance of the subjects, the bulk of the work is taken up with a consideration of the clinical examination of the blood and urine. Shorter chapters are devoted to the gastric contents, feces, sputum, etc. The work is in no sense a series of complete monographs on the subjects considered, and although many references to the literature are given, a complete bibliography is not aimed at. Such things as the diagnosis of tumors, uterine scrapings, skin parasites, etc., do not fall within the scope of the work.

The book is clearly and concisely written and well subdivided for quick reference. It appeals as well to those whose early training did not include many laboratory methods as those who desire to refresh their memories and see what has been added in the last few years to the constantly growing mass of knowledge. The methods of work are not only given, but the significance of the result pointed out as far as may be. The press work is good and the excellent illustrations make a very attractive as well as useful book for all those interested in practical medicine.

CLINICAL LECTURES. Sir William R. Gowers, M. D., F. R. C. P., F. R. S., Hon. Fellow R. Coll. Phys., Ireland. Cloth, pp. 250. Price \$2.00. P. Blakiston's Son & Co., Philadelphia, 1904.

This volume is a collection of ten lectures, given by William R. Gowers, which have appeared in various medical journals from time to time. As is the case with all of this author's works, these essays show the thorough understanding and grasp the writer has of the subject on which he is writing.

The first two lectures, one on Subjective Visual Sensations, and the other on Subjective Sensations of Sound, are of especial interest to the ophthalmologist and otologist. In the first of these lectures are given some original drawings illustrating a few of the unusual visual sensations preceding an attack of migraine. The third and fourth lectures are on Abiotrophy. By this term the writer means a failure of nutrition from defective vitality. After speaking briefly of cutaneous abiotrophy, he takes up the various forms of abiotrophy of the nervous system which he classifies as follows: (1) Those which occur in early life, as early infantile form of progressive (central) muscular atrophy, spastic paralysis of adults, optic abiotrophy and Friedreich's ataxia; (2) Those which occur late in life as progressive (central) muscular atrophy and paralysis agitans; and (3) those which occur in middle life as toxic and toxinic degenerations as illustrated by tabes dorsales and general paralysis of the insane. Muscular dystrophy is the example of abiotrophy of the muscular system.

Some interesting and rather uncommon manifestations of lead and arsenic poisoning are taken up in the fifth lecture. Syphilitic disease of the nervous system occupy the sixth and seventh lectures. Dr. Gowers divides the nervous system into: (1) nerve cells and their processes; (2) neuroglia, which separate and support nerve elements; (3) blood vessels, which penetrate and

permeate the centers, and (4) membranes which enclose and protect these. Now the last three are styled adventitial elements. Syphilis of the nervous system develops in these advential elements and produces symptoms for the most part through changes it causes in the nerve elements. These latter changes are simple and non-specific. The prognosis depends on the extent to which, after the removal of the specific disease, the simple processes on which the symptoms depend, can pass away. The eighth lecture is on Syringal Haemorrhage into the Spinal Cord, giving three cases as a means of illustration. The ninth lecture is on Myasthenia and Ophthalmoplegia with a diagnosis of the same. The tenth and last is on The Use of Drugs. This was delivered nearly nine years ago. Still it is quite as true to-day as when Dr. Gowers first gave it to the public.

The publishers have done their part of the work on this volume in a most satisfactory manner. The paper is good, the type is clear and distinct and the binding is somewhat out of the ordinary, at least for medical books.

G. L. C.

DISEASES OF WOMEN. By Alfred Lewis Galabin, Consulting Obstetric Surgeon to Guy's Hospital. 695 pages, 284 illustrations, sixth edition, much enlarged. P. Blakiston's Son & Co., Philadelphia.

The sixth edition of Galabin's Diseases of Women bears little resemblance to the former editions, so much has it been enlarged and improved. The text, which has been carefully edited, is good throughout, in places even masterful and there is no apparent effort to fill space, resulting in "padding" so evident in some recent works on gynecology.

The chapter on the physiology of menstruation is particularly good, as is that on the infections of the uterus.

Throughout the work, particular strees is laid on symptomatology and diagnosis. Due consideration is also given to the laboratory methods of examination. Local treatment is fully covered, but only the main points on the operative side are given. Thus in the chapter on Displacements of the Uterus, 15 pages are devoted to pessaries and nine to the operative treatment.

The aseptic technic advocated by the author is simple and for the most part consistent. We believe, however, that emphasis should be laid

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upon the necessity of cleaning the patient as well as on sterilizing the instruments before catheterizing, and that few surgeons would agree with the author in advocating catheterization by touch alone.

One hundred and forty-nine new figures have been added, most of which are good illustrations of the points to be demonstrated. The microphotographs are perhaps as good as such cuts usually are, but they give little idea of the actual histologic specimen and have little value.

The index is poor, lessening the value of the work as one of reference.

On the whole the work is well written, the teachings are safe and it will continue to be a popular book with both students and practitioners.

B. R. S.

THE BLUES (SPLANCHNIC NEURASTHENIA). By Albert Abrams, A. M., M. D. (Heidelberg), F. R. M. S., with 27 illustrations. Pages 240. Price \$1.50. Cloth. E. B. Treat & Company, 241-243 West 23rd St., New York City. 1904.

This is a very attractive little book; made up of eight chapters and the appendix. Neurasthenia is taken up in a general sort of way in the first five chapters, while the last three are given over to the splanchnic form. The author considers the causes, symptoms and treatment of "The Blues" in these last three chapters. The physical methods which he uses for relieving the congestion of the abdominal veins and thus causing a cure of splanchnic neurasthenia, are as follows:

- 1. Massage of abdominal muscles.
- a. Method of expulsion.
- b. Respiratory method,
- 2. Exercises which strengthen the abdominal muscles.
 - 3. Respiratory exercises.
- 4. Electricity to the abdomen (the doctor believes the sinusoidal current to be by far the most satisfactory).
 - 5. Abdominal supporters.
 - 6. Cold water.

The work of the publisher is well done. The blue binding is a nice little conceit on the part of E. B. Treat & Co., and is quite an appropriate covering for a book entitled "The Blues."

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Progress of Medical Science.

MEDICINE.

Under the charge of HARRISON D. JENKS.

Pathology of Some of the Diseases of the Pancreas.—A. W. Mayo Robson, in one of the Hunterian Lectures, goes into the pathology of pancreatic diseases in detail. It will be remembered that there are two excretory ducts to the pancreas, that of Wirsung, opening into the common duct at the Ampulla of Vater, and that of Santorini. This latter duct in more than ninety per cent. of the cases is either obstructed or opens into the duct of Wirsung. Hence the duct of Wirsung is the only one of importance.

Symptoms—(a) Steatorrhoea or fatty stools is constant. It may be in fat droplets, as fatty acid crystals or as soap crystals. (b) Azotorrhoea or faulty digestion of albuminous foods. If azotorrhoea be associated with liporrhoea, pancreatic disease is likely. If in addition diabetes be present, it is extremely probable. If azotorrhoea and liporrhoea be associated with the "pancreatic reaction in the urine" (which detects the presence of glycerine in the circulation) pancreatic disease is certain. (c) dyspepsia, vomiting and emaciation are common but not characteristic.

Physical signs.—Tumor is often present in disease of the pancreas, but is suggestive only unless associated with the urine test. There is in this disease a tendency also to general hemorrhage. This is believed to be due to the rapid withdrawal of the lime salts from the blood. Glycosuria is not common and is of no diagnotic value, but if it exists along with the other symptoms recovery is impossible.

Two conditions are common: 1. Fat necrosis so often associated with pancreatic disease is the result of penetration of the fat splitting ferment into the tissues about the gland, or if extensive by continuity of tissue or through the lymphatics.

2. Large pancreatic hemorrhage. This may be due to (a) vascular disease, (b) injury to gland, (c) fatty degeneration, (d) fat necrosis, (e) disintegration of neoplasms, (f) inflammation of gland itself.

Mr. Robson believes that disease of the pancreas is not uncommon, that it is usually unrecognized, but that with the urinary reaction the steatorrhoea and azotorrhoea we should be able to make a diagnosis.—(The Lancet, Mar. 19, 1904.)

Chemistry of Urine in Diseases of Pancreas.

-Cammidge (Arris and Gale Lecture) gives the results of his studies made with Robson on the urine in pancreatic disease. It is now admitted that the masses of free fatty acids or their combination with lime are directly derived from the fat of the affected part by fermentative action of the pancreatice secretion, and that the other constituent of the fat molecule-glycerine-is absorbed into the circulation. The study started with the supposition that there would be minute amounts of glycerine in the blood as a result of fat necrosis. Since the kidneys have selective power on abnormal constituents of the blood, he found the glycerine in the urine. To secure this he finally found two formulae satisfactory. Glycerose is got when glycerine is heated with a mineral acid. He detected the glycerose with phenylhydrazin in form of sheaves or rosettes of golden yellow crystals. Sugar or albumin have to be removed (called method "a").

While this reaction is constant in pancreatic disease, other diseases where there was active tissue change also caused it, as cancer, etc. So he got a further isolating method (method "B"). The urine was treated with a solution of mercury perchloride and hydrochloric acid. After boiling, the solution is neutralized by lead carbonate, and then treated as in method "a." The following summary is arrived at: (1) If no crystals by either "a" or "b" the pancreas is not at fault. (2) If crystals got by "a" and not by "b," active inflammation of the pancreas is present and operation is indicated. If the inflammation is acute the crystal will dissolve in sulphuric acid in one-half minute. If it is chronic, it will take two or three minutes. (3.) If crystals are found in both methods, there may be (a) malignant disease of the pancreas, (b) a damaged pancreas from a previous pancreatitis, (c) some other disease than that of the pancreas, but then the crystals disappear more rapidly.—The Lancet, Mar. 19, 1904.)

SURGERY.

Under the charge of MAX BALLIN.

Intestinal Perforation in Typhoid Fever.—
This article is a splendid statistical report of 362 cases operated upon for typhoid perforation, by different surgeons from all parts of the globe. Perforations of the intestines occurred in $2\frac{1}{2}\%$ of eight thousand eight hundred and eighty-one (8,881) cases of typhoid fever, observed by different authors, in different countries. The male sex is more liable than the female sex to suffer from perforations, in the ratio of about 4 to 1. Of 286 cases where the stage of disease in which perforation occurred is known, only six times, (2%), did the perforation take place in the first week; 162 times (56.8%) in the second or third week, and 118 (41%) after the third week.

Perforation has been often observed in ambulatory and mild cases of typhoid. Of 271 cases, 236 showed single perforation, while in 35 it was multiple. The size of the perforation was mostly less than ½ inch in diameter; in over 73% of the cases the lesion was found on the ileum within 12 inches of the cecum. In only 2.1% of the cases was the perforation more than three feet from the ileo-cecal valve. In 190 cases the colon was perforated seven times, (ascending colon, 5 times; traverse colon, once, and sigmoid flanure once).

Meckel's diverticulum was perforated three times; the vermiform appendix eight times. All of these perforations were undoubtedly of typhoid origin.

The symptoms of intestinal perforation are: Pain, usually of a stabbing nature, most frequently situated in the ileo-cecal region, but sometimes located in the bladder or penis; vomiting with the pain, followed by sweating, with fall of temperature-delirium-rigidity of abdominal muscles, especially of the right rectus muscle, rising pulse, facial expression (peritonitic face), and tenderness of abdomen. Dullness is a very uncertain sign. The examination of the blood shows a steadily rising leucocyte-count up to the time of perforation, but the question of blood counts in these cases is as yet not decided. The accurate observations are very few.

Differential diagnosis has most often to be made from hemorrhage. The passing of blood from the bowels, the pain usually absent in hemorrhage, will be important factors in deciding doubtful cases. It is to be borne in mind that hemorrhage may be associated with perforation. Treatment of all patients suffering from intestinal perforation in typhoid fever should be by laparotomy and suture of the perforation. It may be confidently said that of those patients who die after the operation, very few deaths were hastened by the operation. Recovery without operation is a very great exception, only 14 cases being known all over the world. On the other hand, 16,000 perforations of the intestines due to typhoid fever occur annually in the United States alone. Of the 362 operated cases, reported in this paper, 94 or 26% recovered, and 268 or 74% died.

The prognosis will improve the earlier operations are resorted to. (Annals of Surgery, Jan. 1904. HARTE and ASHHURST).

Prostatomia Infrapubica.—Hensner reports a case of resection of the middle lobe of the prostate by the infra pubic route. The incision was made along the lower edge of the pubic arch, separating the suspensory ligament, the corpora cavernosa and the ischio-cavernous muscles. (This method seems to be much more complicated and more dangerous than the super pubic or the perineal routes and has no advantages over either.—Editor). (Zentraeblatt für chiriurgie. 1904, No. 8. Hensner).

Incontinence of Faeces.—A. Cause:

Incontinence of faeces can be classed, broadly speaking, into two groups:

- 1. Case in which the sphincter ani still retains some amount of power, but not sufficient to entirely close the anal orifice.
- 2. Case in which the sphincter ani is completely paralyzed as in many nervous diseases or where it has been entirely removed as after the operation for excision of the rectum.

B. Treatment:

In Group 1 it is conceivable that if by introducing paraffin into the submucous tissue on the inner surface of the sphincter, we narrow the lumen of the bowel at this situation and thereby diminish the work which the sphincter has to perform; even a weakened sphincter may be able finally to occlude the remaining lumen and so render the patient continent.

In Group 2 various methods have been tried to remedy this trouble. In two cases I have obtained great benefit from the submucous injection of paraffin into the lower portion of the rectum as originally suggested by Gersuny of Vienna in 1889. (The Lancet, March 12, 1904. A. H. Burgess.)

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GYNECOLOGY AND OBSTETRICS.

Under the charge of

B. R. SCHENCK.

Sterility—A recent article on Sterility, by Horrocks, covers the subject in an excellent manner and contains many interesting points. The author first sets forth the conditions necessary for the successful production of a child, and then discusses each of these conditions. They are, (1) a living ovum, (2) one or more living spermatozoa, (3) the meeting and coalescence of these two, (4) a suitable place of meeting, (5) anchorage of the ovum, after impregnation, (6) healthy endometrium, (7) a uterus capable of developing until the child is viable.

Under (1) the author takes up age, the production of dead ova, the relation of obesity, the effects of foods and drugs and the results of interbreeding. (2) It is wrong to assume, as is usually done, that the defect is in the wife. (3) Probably 99% of all cases of sterility are due to something which prevents the ovum and spermatozoon from meeting. Gonorrhoeal salpingitis, ·leucorrhoea and frequent douching are among the most frequent causes. (4) The place of meeting must be above the cervix. There is no known case of the ovum developing in the cervical canal or vagina. (5) The mucosa of the uterus or tube provides the anchorage necessary for the (6) Endometritis is a prolific development. source of sterility. An undeveloped uterus may have an undeveloped and functionally imperfect endometrium. (7) Among the causes preventing the uterus from developing are myomata, inflammatory adhésions and abnormal positions. ill and often lasting effects of the various methods of preventing conception, when discontinued are frequently the cause of subsequent sterility.

In the general treatment, the author mentions the advantages of a spare diet, physical exercise and changes of environment and climate. Alcohol and opiates are contraindicated. Local treatment for the various pathological conditions causing sterility are discussed at some length.—Lancet, Jan. 9, 1904).

Placental Transmission in Typhoid Fever.—Lynch reports a carefully studied case of typhoid during pregnancy, in which he was able to demonstrate placental transmission. The patient was a negress, aged 23, who on the twelfth day of a typical attack of typhoid fever aborted at the third month. The fœtus was received into sterile towels, and the placenta not coming away, was later removed under chloroform anesthesia.

Laboratory examination showed the widal with the mother's blood positive on the eleventh day and typhoid bacilli were cultivated from the urine on the twelfth day. Blood cultures taken at three different times were sterile. Cultures from the heart's blood of the fœtus showed typhoid bacilli, which were agglutinated by the serum from a known case of typhoid but the widal test with the fœtal blood was negative. Autopsy of the fœtus showed no lesions.

Typhoid organisms could not be obtained from the placenta, which showed, however, numerous hemorrhagic infarcts. Inoculations from the lochia into bouillon showed typhoid bacilli in mixed culture.

The subjects of typhoid fever and pregnancy, and of placental transmission, are very fully discussed.—(Johns Hopkins Hosp. Reports, vol. x.)

Pulmonary Embolism and Phlegmasia Alba Dolens.—Sheldon reports two fatal cases of embolism in the pulmonary circulation occurring in the course of milk leg.

The first patient had a mild attacks of phlebitis in the left leg, beginning on the 14th day after delivery. The onset of the pain in the leg was very sudden and was associated with tenderness and ædema, making the diagnosis evident. The patient was kept in bed and was progressing satisfactorily, when, on the 22nd day, she cried out suddenly, gasped for breath, became cyanotic and died.

The second fatal case was that of a multipara, whose delivery was followed by infection. The uterus was curetted on the 7th day. On the 16th, there was sudden pain, tenderness and swelling in the left leg, despite which the patient was moved a distance of 17 miles on a stretcher. The general and local condition seemed to improve until the 25th day, when she suddenly complained of dyspnoea, became cyanotic and died.

The pulse curve of Singer (abnormally high in proportion to the temperature) was not seen in these cases. In neither case was massage employed. Post-mortem examinations were not made, but the symptoms were sufficiently characteristic to allow of the diagnosis of embolism.—(American Medicine. March 26, 1904.)

Associated Tuberculosis and Carcinoma.—Wallart reports three rare cases of carcinoma and tuberculosis, appearing in the same uterus. In the first case, caseous tubercles, with giant cells, were found in curettings from an adenocarcinoma; in the second, the tubercles, were intimately associated with a cervical epithelioma; in the thrrd, a tuberculosis nodule was found n the fundal mucous membrane of a uterus removed for cervical carcinoma.

The author believes that tuberculosis is a predisposing factor in the development of carcinoma and that the combination is not as rare as previously supposed.—(Zeitsch. f. Geb. u. Gyn. Bd. L Hft. 2.)

PHARMACOLOGY AND THERAPEUTICS.

Under the charge of

W. J. WILSON, JR.

Diabetes—Williamson divides his diabetic cases for therapeutic purposes into three groups:
(a) the most severe form, in which the urine gives a brownish red coloration with perchloride of iron, and in which a rigid diet fails to arrest the sugar excretion; (b) cases of medium severity in which rigid diet also fails, but where the iron test is negative; (c) mild cases in which a rigid diet results in no sugar excretion and where the iron test is negative.

In the mild form, he withdraws for a time all carbohydrates, and then gradually adds them to the diet until just within the point at which sugar excretion would commence. In the medium form, a strict diet is tried for a time, but if the patient rapidly loses weight, a small amount of carbohydrate is given. In the most severe form, he always allows a little carbohydrate in the form of bread. Salicylate of sodium, and aspirin (acetyl salicylic acid) are distinctly beneficial, while not specific. The former, is given in peppermint water, commencing with ten grains three times a day, and increasing up to 15 grains, 3, 4, or 5 times a day if necessary. With large doses it is important to watch for toxic symptoms and discontinue the drug if these occur. Pure natural sodium salicylate is the best preparation. Aspirin is given in the same dosage and as often as the sodium salicylate, being given in a little water to which a drop of lemon juice is added.

Many other drugs have been used in the treatment, and it is probably that opium, morphine, codeia, sumbul, uranium nitrate, arsenic, and antipyrin have in certain cases some beneficial effect. An objection to the first three drugs is their constipating action, and this is especially undesirable in the most severe forms of the disease since constipation appears to predispose to the onset of coma. It is important, therefore, when these drugs are given that care should be taken to keep the bowels regular. In the cases denominated most severe, the alkaline treatment, bicarbonate of sodium in large doses is of some service in postponing the onset of coma. The dose should be steadily increased up to 2, 3, or 4 drachms or more daily. (WILLIAMSON, London Lancet, Jan. 23, 1904).

Diabetes—In the therapeutic treatment of this disease, Thompson considers cod-liver oil as the

most valuable, and then iron. He gives this latter in the form of the old fashioned Hooper's pills, the formula of which is

Sig: One 3 times a day.

To secure speedy reduction in the amount of sugar excreted he gives antipyrin and sodium benzoate of each gm. j. (15 grains) 4 times a day, after a time substituting 1 gm. of aspirin (15 grains) with .65 gm. of bismuth salicylate (10 grains). In subacute cases, he uses:

Sig: Take an hour after meals and at night, or.

 Sodii sulphocarbolatis
 8. 5ij.

 Salicin
 4. 5j.

 Phenacetin
 8. 5ij.

 Ammonii benzoatis
 16. 5ss.

 Div. in caps. No. xlviij.

Sig: Two one-half hour after meals.

M.

Sig: To be taken in a glass of hot water at one time.

Alkalies hold a deserved place, but the free use of saline water tending to increase the waste of the system, should not be given to one losing flesh. In coma he uses prolonged intestinal irrigation with saline solution. (Thompson, American Medicine, Feb. 20, 1904.)

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DERMATOLOGY AND SYPHILIS.

Under the charge of
A. P. BIDDLE.

Removal of Warts, Moles and other Facial Blemishes.—Warts appear in children in great number as small papular, flat and soft, of the color of the skin; as the ordinary warts as seen upon the hands; as the filiform warts as found in abundance upon the neck; and as the senile warts of middle life and advanced age, when they appear as flat, brownish, blackish, oval, somewhat raised, rough excrescences.

The ordinary seed warts should be scraped off with the curette and the excoriated surface touched with pure carbolic or glacial acetic acid, or the saturated solution of salicylic acid in callodion. No scars will be left.

The filiform warts are snipped off with a pair of scissors close to the skin and the base touched with pure carbolic acid. If quickly done the operation is not painful.

The senile wart is best treated with a saturated solution of salicylic acid, except where there is a tendency to enlarge and a danger of becoming epitheliomatous, when it should be thoroughly curetted and the base cauterized with the nitrate of silver or treated with the arsenical paste or the chloride of zinc, as in the case of the epithelioma. The application of a mild ointment is worse than useless.

Naevi (birthmarks and moles) are vascular, pigmentary, hairy or fibrous, or mixed.

Vascular Naevi may be simple dilatations of capillaries (telangiectases), congenital or acquired (inappropriately called Spider-cancers), sometimes forming patches of varying shades of red, from pink to purple (portwine marks), or may take the form of vascular tumors (angioma cavernosum), usually found on the forehead of the infant near the anterier fontonelle.

Pigmentary Naevi are of various shades of color from brown to black, sometimes infiltrated with long fine or coarse hair (hairy naevi).

The fibrous naevus is a fibroma, sessile or pedunculated, of the color of the skin or some shade of brown, most often seen on or near the nose, prominent excrescences from the size of a small pea to a small marble.

To remove all forms of vascular naevi there is in Dr. Jackson's experience nothing so rapid and brilliant as liquid air applied by means of a swab of absorbent cotton or by means of a

syphon bottle. The naevus is destroyed with one or two applications and with but little scarring, but the operation is painful and the liquid air cannot be readily obtained. Electrolysis is the next best because it is under the control of the operator, while caustics, acids and alkalies are not. In simple telangiectasis the vessels may be destroyed by passing a fine needle, such as is used for the destruction of superfluous hair, attached to the negative pole of a galvanic battery, into their course, using a current of about two milliamperes for about one-half minute. The vessels will shrink up and disappear.

In the so-called *spider cancer* it is only necessary to pass the needle into the middle prominent point and destroy it, when the dilated blood vessels will shrink up and disappear. The same may be done by touching the point with a drop of fuming nitric acid.

The portwine mark is most unsatisfactory to treat; as the vessels lie deep in the skin, it is impossible to destroy the naevus without destroying the skin. What it is aimed to do is to destroy as little of the skin as possible and to substitute for the red mark a delicate pink. This is best done by electrolysis. A number of punctures are made in lines at a distance of a sixteenth inch apart, with a current of 2 to 3 milliamperes for about a half minute in each place. The operation is slow and very tedious.

The angioma cavernosum of small and medium size can be destroyed most effectively by electrolysis and next best by touching it with fuming nitric acid.

The pigmentary naevi, the hairy naevi and the fibrous naevi are all best removed by electrolysis.

The Xanthoma is a small yellow patch which comes near the eyelid, usually appearing in groups, soft and velvety to the touch, with no subjected symptoms. These patches may be removed by electrolysis.

Superfluous hairs are still best removed by electrolysis. The use of the Roentgen rays is too uncertain and, as the exposures must be frequent and for some length of time, not without danger. (The Journal of Cutaneous Diseases, March, 1904. G. T. JACKSON.)